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ABSTRACT

These lesson assignments, text materials, self-grading lesson exercises, and examination for a secondary-postsecondary subcourse in club management are one of a number of military-developed curriculum packages selected for adaptation to vocational instruction and curriculum development in a civilian setting. This introduction to the subcourse is comprised of two lessons. Lesson 1, Club Operations Orientation, discusses the role of the installation club manager and the functions, responsibilities, and principles of management. Lesson 2, Club Equipment and Layout, covers procurement of club equipment, which includes funds and supply procedures used, selection and distribution of various types of equipment, and layout and design principles for club kitchen and dining areas. The examination does not include an answer key. (LRA)

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Military Curricula for Vocational & Technical Education

CE 028 783

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

INTRODUCTION TO CLUB MANAGEMENT
9-8

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY

This military technical training course has been selected and adapted by The Center for Vocational Education for "Trial Implementation of a Model System to Provide Military Curriculum Materials for Use in Vocational and Technical Education," a project sponsored by the Bureau of Occupational and Adult Education, U.S. Department of Health, Education, and Welfare.

MILITARY CURRICULUM MATERIALS

The military-developed curriculum materials in this course package were selected by the National Center for Research in Vocational Education Military Curriculum Project for dissemination to the six regional Curriculum Coordination Centers and other instructional materials agencies. The purpose of disseminating these courses was to make curriculum materials developed by the military more accessible to vocational educators in the civilian setting.

The course materials were acquired, evaluated by project staff and practitioners in the field, and prepared for dissemination. Materials which were specific to the military were deleted, copyrighted materials were either omitted or approval for their use was obtained. These course packages contain curriculum resource materials which can be adapted to support vocational instruction and curriculum development.

The National Center Mission Statement

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

FOR FURTHER INFORMATION ABOUT Military Curriculum Materials
WRITE OR CALL

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THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
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Military Curriculum Materials for Vocational and Technical Education

Information and Field Services Division

The National Center for Research in Vocational Education

Military Curriculum Materials Dissemination Is . . .

an activity to increase the accessibility of military-developed curriculum materials to vocational and technical educators.

This project, funded by the U.S. Office of Education, includes the identification and acquisition of curriculum materials in print form from the Coast Guard, Air Force, Army, Marine Corps and Navy.

Access to military curriculum materials is provided through a "Joint Memorandum of Understanding" between the U.S. Office of Education and the Department of Defense.

The acquired materials are reviewed by staff and subject matter specialists, and courses deemed applicable to vocational and technical education are selected for dissemination.

The National Center for Research in Vocational Education is the U.S. Office of Education's designated representative to acquire the materials and conduct the project activities.

Project Staff:

Wesley E. Budke, Ph.D., Director
National Center Clearinghouse

Shirley A. Chase, Ph.D.
Project Director

What Materials Are Available?

One hundred twenty courses on microfiche (thirteen in paper form) and descriptions of each have been provided to the vocational Curriculum Coordination Centers and other instructional materials agencies for dissemination.

Course materials include programmed instruction, curriculum outlines, instructor guides, student workbooks and technical manuals.

The 120 courses represent the following sixteen vocational subject areas:

- Agriculture
- Aviation
- Building & Construction Trades
- Clerical Occupations
- Communications
- Drafting
- Electronics
- Engine Mechanics
- Food Service
- Health
- Heating & Air Conditioning
- Machine Shop
- Management & Supervision
- Meteorology & Navigation
- Photography
- Public Service

The number of courses and the subject areas represented will expand as additional materials with application to vocational and technical education are identified and selected for dissemination.

How Can These Materials Be Obtained?

Contact the Curriculum Coordination Center in your region for information on obtaining materials (e.g., availability and cost). They will respond to your request directly or refer you to an instructional materials agency closer to you.

CURRICULUM COORDINATION CENTERS

EAST CENTRAL
Rebecca S. Douglass
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Springfield, IL 62777
217/782-0759

NORTHWEST
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INTRODUCTION TO CLUB MANAGEMENT
QM0497

Correspondence Course 9-8

Developed by:

U.S. Army

Development and Review Dates:

April 1971

Occupational Area:

Food Service

Print Pages:

61

Availability:

ERIC
National Center Clearinghouse

Suggested Background:

None

Target Audiences:

Grades 10 - Adult

Organization of Materials:

Lesson assignments, text materials, self-grading lesson exercises, examination

Type of Instruction:

Programmed, self-paced, individual

Type of Materials:	No. of Pages:	Average Completion Time:
Lesson 1 - Club Operations Orientation	14	Flexible
Lesson 2 - Club Equipment and Layout	32	Flexible

Supplementary Materials Required:

None

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
OSU The Ohio State University
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INTRODUCTION TO CLUB MANAGEMENT
2 QM0497

Course Description:

This subcourse is of interest to all personnel who anticipate assignments involving club management or who desire familiarization with club administration. It explains club operations, and procurement of equipment.

Lesson 1 - Club Operations Orientation discusses the role of the installation club manager; and the functions, responsibilities, and principles of management.

Lesson 2 - Club Equipment and Layout covers procurement of club equipment which includes: funds and supply procedures used, selection and distribution of various types of equipment, and layout and design principles for club kitchen and dining areas.

Each lesson assignment includes lesson text and self-grading lesson exercises. An examination is included, however, the answers to this examination are not available. Lesson 1, Section 1, Lesson 3 and their supporting materials have been omitted due to military specific materials.

INTRODUCTION TO CLUB MANAGEMENT
QM0497

CORRESPONDENCE COURSE

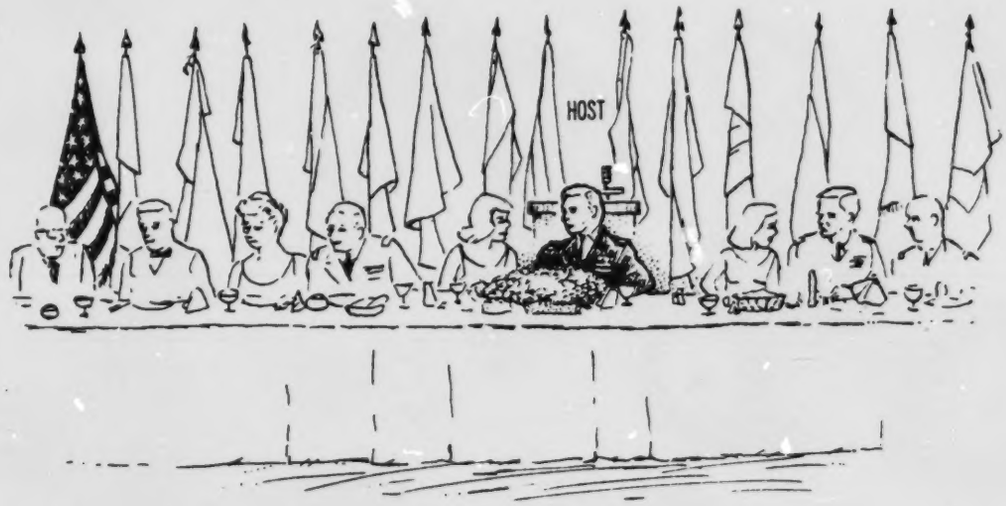
TABLE OF CONTENTS

Lesson	Page
1. Club Operations Orientation	6
2. Club Equipment and Layout	21
Examination	54

NOTE: Lesson 1, Section 1, Lesson 3 and their supporting materials have been omitted due to military specific materials.

This Subcourse is Designed for Lesson Self-Grading 4

U.S. ARMY QUARTERMASTER SCHOOL
CORRESPONDENCE SUBCOURSE



QM0497

INTRODUCTION TO CLUB MANAGEMENT

Prepared by
United States Army Quartermaster School
Fort Lee, Virginia 23801
Supply Training Center of the Army School System

APRIL 1971
[Reprint [B], August 1975]

Army-Fort Lee, Va. -10890-75-375-4

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QM0497

INTRODUCTION TO CLUB MANAGEMENT

INTRODUCTION

1. SCOPE. Introduction to Club Management includes club operations, club equipment and layout, and military and civilian protocol.

2. APPLICABILITY. This subcourse is of interest to all personnel who anticipate assignments involving club management or who desire familiarization with club administration. The subcourse explains club operations, funds authorized for establishment and use, procurement of equipment, disposition of property; rules of protocol, including seating, serving, receiving lines, and precedence among the military; and displaying the National flag.

3. PROGRAM OF CONTINUING STUDY. When you successfully complete this subcourse, we recommend that you apply to take one or more of the following:

a. QM0371, Club Restaurant Operations, Part I.

b. QM0372, Club Restaurant Operations, Part II.

c. QM0498, Management of Club Resources.

d. QM0500, Open Mess Food Service.

e. QM0501, Management of Club Accounting.

LESSON 1 Credit Hours: 2

LESSON ASSIGNMENT

SUBJECT	Club Operations Orientation.
STUDY ASSIGNMENT	Lesson Text.
SCOPE	Club manager; functions, responsibilities, and principles of management.
OBJECTIVES	As a result of successful completion of this assignment, the student will be able to--

1. Explain the role of the installation club manager.
2. Define management and the principles of management as applied to Army clubs.

CONTENTS

SECTION II	FUNCTIONS OF THE MANAGER		
	Introduction	8	17
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	Management skills	10	19
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ADMINISTRATIVE INSTRUCTIONS

4. MATERIALS CHECK. Check to make sure you have any study materials listed on the cover. If anything is missing, unreadable, or not in order, let us know right away. Use a Student Inquiry Sheet; we've bound one into this booklet at the end of each lesson. Take a look at your examination answer form. Is the subcourse number on the form the same as the number of this subcourse? If not, get the word to us; we'll have a correct answer form on its way as fast as we can. Don't forget to include your social security account number (student number), mailing address, and ZIP code when you write.

5. SUBCOURSE ORGANIZATION. This subcourse is organized into this single booklet containing materials needed to complete the subcourse. If additional materials are needed they are indicated on the booklet cover. This subcourse booklet consists of lessons and an examination (see paragraph 7). Each lesson consists of a lesson assignment, contents pages, lesson text, self-grading lesson exercises, and a student inquiry sheet.

6. LESSON EXERCISES. Each lesson in this subcourse is designed for self-evaluation. This is done through the self-grading exercises which you must work after studying each lesson text. You will find instructions for completing the exercises in each lesson. Because you complete the lesson exercises and verify your own work, you do not submit your answers to the School for grading. This is what is meant by the self-evaluation characteristic of this subcourse's lessons. You will receive credit for the total hours of this subcourse upon successful completion of the examination.

7. EXAMINATION. Take the examination only after you have studied all the lessons and successfully worked all the lesson exercises. Remember, your answers must be based on the study assignments, not on personal experience or information from other sources. Further instructions are with the examination. Be sure to read them.

a. If you are a Quartermaster School student, use the machine-process answer form for your answers to the examination exercises. We know you want to receive credit for this subcourse, so be sure to send the completed form to the School for grading. Please don't tear, bend or puncture this form; if you do, the grading machine will toss it back at us, ungraded.

b. If you are a student of another school, use the instructions and answer form provided by that school.

SECTION II

FUNCTIONS OF THE MANAGER

8. INTRODUCTION. The differences in individual clubs and in the duties and qualification of personnel are determined by the size of the club, the type of food service offered, and the availability of qualified personnel. An elaborate breakdown of jobs is characteristic of larger clubs. The same work is carried on in smaller clubs, although there is a great deal of job combination and a much less complicated operating procedure. The manager coordinates activities and is responsible for club management and his staff's performance. Successful organization of a staff into a working unit depends upon recognizing the capabilities, potentials, and interests of the employees and in assigning and training them accordingly. The manager must be able to coordinate functions and activities and promote and maintain harmonious relations among the operating branches for the benefit of the entire club. He must organize, finance, and staff the club with that end in mind.

9. THE PRINCIPLES OF MANAGEMENT. Management is a process of organizing and employing resources to accomplish objectives. The club objectives are to promote and maintain the well-being, morale, and efficiency of personnel, enlisted and officer, by providing them with dining, social, and recreational facilities. Management is geared to this end. There is no place in the complex management system for the pure-hunch decision or the "seat of the pants" problem-solver and decision-maker. Too much is at stake for problem solving to be undertaken only in terms of how much experience one has in a given area. Decision making must combine experience and the principles of management. There are five basic principles of management used by the manager:

a. PLANNING. Effective managers realize that a substantial portion of their time is devoted to planning. It is a logical method of moving from one state of affairs to another. The detail and depth of the planning depend entirely on the size and complexity of the undertaking. The scope of the manager's planning could range from small details, such as what to include on a menu, to major items, such as what kind of entertainment to offer for a special season. Planning requires the ability to think, to analyze, and to reach decisions. In planning, the manager must consult with many people: the chef, about food; the bartender, concerning alcoholic drinks; maintenance personnel, concerning repairs to the club and equipment; the artist, for decorations; and many others. There are several elements in any planning function. If the manager were faced with the problem of disposing of a large amount of leftover roast beef, he could apply the elements of planning as follows.

(1) DETERMINING THE OBJECTIVE. The manager may have as his objective the profitable disposition of the leftover roast beef.

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(2) ESTABLISHING MEASURABLE GOALS. The manager could have two primary goals. First, he could have the goal of making a profit. This goal is influenced by whatever decision he makes regarding the method to be used for disposing of the beef. Second, he is concerned with disposing of the beef without a loss.

(3) EVALUATING ALTERNATE COURSES OF ACTION. The manager must evaluate different courses of action regarding the leftover beef. Acceptable courses of action might be to offer hot roast beef sandwiches on a lunch menu or to serve the beef in a buffet. The manager must take the action which would be the most profitable and would dispose of the largest amount of beef.

(4) DEVELOPING PROCEDURES TO BRING ABOUT THE PLAN. If the manager decides on the second course of action, he must consult with the chef concerning the preparation for the buffet. He must consult with others concerning space and other problems. The manager must consider many things, such as the feasibility of having a buffet at that time of month and the other activities that are planned for that period. In developing procedures to bring about the plan, the manager must be flexible to fit the plan and the procedures so that the effort will be successful.

b. ORGANIZING. Organizing is putting work into separate tasks and providing for their accomplishment. In the organization of the club, a chain of command must be established. Activities are divided into functions such as bar, dining facility, catering, recreation, accounting, maintenance, supply; and a supervisor and the needed resources are assigned to each function. In organizing the club activities, the manager must take the following steps:

(1) Determine what is necessary to accomplish the mission. Each function must be analyzed to determine the equipment, personnel, or supervision necessary for it to operate.

(2) Make sure that all related functions are grouped. For instance, all advertising effort, decorating, and sign painting should be grouped. The artist, workers, and supervisor would then put a concerted effort behind the advertising and decorating and realize better results.

(3) Establish organizational chain of command (fig. 1). The manager must establish a chain of command and insure that all employees are aware of who their supervisor is and his area of responsibility.

(4) Assign responsibilities so that someone is responsible for all phases of the club operation. This insures that the manager will have someone to help him with any problems in the club's operation.

(5) Select and assign personnel and allocate other resources. The selection and assignment of personnel to area of responsibility are based upon a person's ability, experience, and leadership. After a person is selected, he must be given the resources and authority to operate his segment of the club.

(6) Insure control of his many operations. He must establish checks and balances so that one person's work is checked by another person. For instance, the purchasing agent for the club may not purchase anything without a purchase order from the purchasing department, and the purchasing department may not issue an order without authorization from the department concerned.

c. DIRECTING. Directing means guiding the club in the execution of its plans. Once the plans have been set up, the manager must determine how much direction is needed to accomplish the task. To provide the needed direction, the manager must communicate ideas to the employees, motivate employees to carry out the ideas, and supervise the performance of the tasks.

d. COORDINATING. Coordinating is the tying together of all functional elements in the mission. Coordination insures that different sections or persons do not have conflicting or overlapping functions, that maximum cooperation between sections is achieved, and that resources are being expended wisely.

e. CONTROLLING. Control is exercised by the manager to regulate activities according to the original plan, which was based on an analysis of organization goals or objectives. Control can best be achieved by observation and comparison of actual operations with planned operations and correction of any deviations.

10. MANAGEMENT SKILLS. There are many sides to the management question. There is the viewpoint of the total organization, the outlook of its responsible authority, the attitude of the employee toward his boss, and the concern of the manager in terms of his responsibility. The manager uses technical, human, and conceptual skills to bring about the successful completion of the organizational mission.

a. TECHNICAL. In club management, technical skills relate to the manager's ability to establish accounting controls, analyze financial statements, and determine whether his operations are profitable. The manager must also have the technical knowhow to establish cost controls so that the operations can be managed to produce a profit. The manager must understand the essentials of preventive maintenance of his equipment throughout the club. The manager must understand the technical operations of the club so that all phases of club operation will be managed properly. Especially important is the safeguarding and proper handling of financial profits from the club operations.

b. HUMAN. The human side of a manager's ability refers to his relationship with personnel and proper job utilization. He must regard each employee as an individual.

c. CONCEPTUAL. The conceptual capacity of the manager has to do with his originality and the formation of ideas to support the overall mission of the organization. He must capitalize on ideas by conceiving programs that will satisfy the customers.

II

11. MANAGEMENT FUNCTIONS. Utilizing the technical, human, and conceptual skills, the manager performs his role by accomplishing the functions of the manager. There are six functions.

a. ESTABLISHING OBJECTIVES. The manager must be able to define the purpose for which his organization exists and be able to state and identify objectives which support the major mission. For example, the manager knows that the major mission of the club is to provide servicemen with recreation and dining and to provide top service at a minimum cost. One way to achieve this mission is to operate a stag bar. The manager would think in terms of how well it supports the total club, and would organize, finance, and staff it with that end in mind.

b. MOTIVATING SUBORDINATES. The most successful manager is one who can get his personnel to work with him. This is called motivation. Motivation is concerned with stimulating and influencing human behavior. There are two fundamental types of stimuli, positive and negative. Positive motivation is a process of attempting to influence others to do one's will through the possibility of gain or reward. Negative motivation has the same purpose, but its basic techniques use the force of fear. In the first type of motivation, there is the possibility of gain--more money, more recognition, or more power. In the second type, if the subordinate does not do what is asked, he will lose--lose recognition, money, or a job. The fundamental test of the effectiveness of motivation is the kind of operating results that are obtained. It is generally true that positive motivation creates greater worker satisfaction than does negative; with it there should be higher morale, fewer complaints, and, in general, less trouble. Negative appeals are much easier to use, but they result in higher production and lower morale in the short run and lower production and lower morale in the long run. The positive approach generally results in lower production and higher morale in the short run, and higher production and higher morale in the long run. Negative motivation should be used only after attempts at positive motivation have failed. Some examples of positive motivation are as follows:

(1) PRAISE AND CREDIT FOR WORK DONE. The technique of praise is too often overlooked as a useful tool of motivation. Most people like to receive recognition for work well done. Silence is not enough, particularly when good work is greeted by no comment and bad work always gets a reprimand.

(2) KEEPING THE EMPLOYEE CURRENT ON PLANS AND OPERATIONS. Most people want to know what is behind events and actions that affect them and in which they have some interest. This is contrary to the belief of some managers who feel that the employee is interested only in the paycheck. Money is a very powerful and positive motivational tool, but it has been found that information also is desired by most employees. In fact, if information is not given them, employees often manufacture gossip and rumor to satisfy their desire for it. Rumor and gossip frequently cause more damage and loss than could possibly result from distributing information in the first place.

(3) A SINCERE INTEREST IN SUBORDINATES AS INDIVIDUALS. Most persons have observed that they get an immediate response when they show an interest in the experiences or feelings of others. The manager's concern for his subordinates indicates that they have become something more than numbers or faces in his life. The favorable response in attitude often brings about better job performance.

(4) PARTICIPATION. Participation involves essentially the idea of permitting and stimulating greater employee participation in decision making and policy formulation. However, the manager must be able to retain the atmosphere of managing or leading while implementing his philosophy of participation.

(5) DELEGATION OF RESPONSIBILITY. When the supervisor has properly evaluated or gaged the caliber of his workers, he may delegate responsibility effectively. This practice is a strong motivating factor. It makes the subordinate feel that the manager trusts him, and he then feels he must show results.

(6) TRAINING. Adequate training is another motivating factor. It gives the employee confidence and contributes to a well-run operation. Many managers neglect training with the result that employees perform poorly, customers are dissatisfied, and the club begins to show less profit.

(7) PERSONNEL POLICY. Careful handling of personnel is essential, and sound personnel policies must be formulated. Working conditions should provide all workers with light, clean, well-equipped, adequately ventilated working space as well as adequate lockers, a lavatory, and a pleasant, well-kept lounge. Employees who do satisfactory work should be assured of job security. Some clubs also provide a free meal for their employees. The practice in some clubs to use leftovers for this meal has proved detrimental to morale. If a meal is furnished, the manager should see to it that it is planned as any other meal.

c. COMMUNICATING. Managing is getting things done through others, and this means communicating with other people. A person must understand an order before he can comply with it. Communicating is the transferring of ideas, concepts, direction, and specific information from the manager and supervisors to subordinates. Of all the capacities in which a manager works, that of attempting to convey ideas to employees most taxes his time, patience, and ability. In communicating, the manager must choose his words carefully, and he must look ahead and foresee the reactions of the employees. If a plan requires an increased workload or a rushed completion date, it is logical to assume that employees will present some resistance to the accomplishment of the goal. By anticipating the attitude of the employees, the manager might communicate in a motivating manner, acknowledging the employees' increased workload, expressing understanding of their situation, and stressing the importance of the goal to them and to the organization. Transferring ideas is only part of the communication process. Listening is also important. Good listening is not passive; one has to work at it to do it properly.

(1) STEPS TO BE FOLLOWED IN THE COMMUNICATION PROCESS.

(a) Analyze subject material.

(b) Anticipate employee reaction.

(c) Communicate clearly and concisely in a way that will motivate employees to cooperate.

(2) FORMAL CHANNELS OF COMMUNICATIONS. Formal channels of communication are communications from the manager to his employees, feedback of necessary information from employees to supervisor, and the coordination of communication between departments and sections. These types of communication might best be described by the direction they take: down, up, and across.

(3) INFORMAL CHANNELS OF COMMUNICATION. Informal or "grapevine" channels of communication exist between employees. The development and spreading of morale-destroying rumors can be eliminated by supplying correct information.

d. COOPERATION. Cooperation is the support a manager receives from his employees. This function is described best as a scale on which individual interest and organizational needs are suspended in balance. Instead of relying upon formal authority, managers need to consult with others on plans, explain actions more fully, motivate subordinates to comply with orders, and emphasize a "we" approach.

e. INNOVATING. New ideas in food planning and preparation, modifications and advances in the layout and design of clubs, changes in regulations that govern club operations--all of these factors require management to be adaptable. The need for innovations is spurred by the fact that today's club manager may be faced with doing a bigger job with fewer resources and finding simpler, more economical ways of accomplishing his mission. Employees are good sources of ideas. However, the manager is the important link between higher management and the employees. It is up to him to solicit the suggestions from the employees. His willingness to respect the opinions and suggestions of persons who have first-hand acquaintance with the job is a critical factor in successfully utilizing suggested innovations.

f. DECISION MAKING. Decision making is the most significant management function. This does not imply that decisions are made only by the supervisor. There are many decisions made on lower echelons which are immediate in formulation and short-range in effort. Decisions relative to policy and major planning properly fall to the manager. All decisions should represent a selection of a course of action from among a number of courses of action. Vital information pertinent to the problem should be gained from personnel working on the practical level as well as individual opinion. The following considerations applied in sequence lead to the logical, orderly formation of decision.

(1) COLLECT ALL PERTINENT PHYSICAL DATA. Recognize and define the problem. Facts cannot be collected indiscriminately. There must be some direction, or the job will never be finished. Factfinding can involve numerous techniques and approaches, from detailed study of records to casual observation of processes.

(2) DETERMINE POSSIBLE SOLUTIONS. The determination of possible solutions to a problem requires some knowledge of its nature and of the circumstances surrounding its development. It is at this point that ideas and hypotheses are needed. There should be a definite attempt to relate the various alternatives to each other. It will often be found that two or more proposed answers have a common source, which should be pursued for a more basic handling of the problem.

(3) DETERMINE THE SOLUTION. At some point in the process of problem solving, the manager must make up his mind. It may be that one of the tentative solutions survives the factfinding and analysis stage, or the solution may involve a synthesis of selected parts of several hypotheses.

(4) ARRANGE FOR THE EXECUTION OF THE SOLUTION. As a final stage of planning, the manager must determine certain supplementary plans to arrange for the actual installation of the final decision.

PROGRAMED REVIEW B

The exercises below will provide you with a review of the key points in section II.

Read each frame and fill in the blanks with the correct word(s) while covering the frame below it. If you have trouble, restudy the appropriate text portion (paragraph reference follows each exercise). When you have written your answer, uncover the next frame in sequence where the correct solution is given and additional review material is presented.

If you have made a wrong answer, erase it and enter the correct solution. Then, go back and restudy the appropriate text portion once more.

B1. The process of organizing and employing resources to accomplish objectives is called _____. (9)

---

management

B2. A logical method of moving from one state of affairs to another is _____. (9a)

---

planning

B3. Putting work into separate tasks and providing for their accomplishment is _____. (9b)

---

organizing

B4. Guiding the club in the execution of its plan is _____. (9e)

---

directing

B5. Tying together all the elements of the mission is _____. (9d)

---

coordinating

B6. Regulating activities in keeping with the original plan is _____. (9e)

_____

controlling

B7. To bring about successful completion of a mission, the manager uses _____, _____, and _____ management skills. (10a,b,c)

_____

technical, human, conceptual

B8. The manager who gets his personnel to work with him is using _____. (11b)

_____

motivation

B9. In order to transfer his ideas to his employees, the manager must be able to _____. (11c)

_____

communicate

B10. When a manager consults with others on plans, explains his actions, and uses a "we" approach, he most likely will receive _____ from employees. (11d)

_____

cooperation

B11. Managers must be willing to adapt new ideas in food planning, layout and design of clubs, and club regulations and must be prepared to make any needed _____. (11e)

_____

innovations

17

B12. The most important management function is _____ _____. (11f)

_____

decision making

DO YOU UNDERSTAND EVERYTHING IN THIS PROGRAMED REVIEW? HAVE YOU CHECKED YOUR RESPONSES, MADE CORRECTIONS, AND RESTUDIED THE TEXT, IF NECESSARY? IF YOU HAVE, GO ON TO THE NEXT STUDY UNIT OF THIS SUBCOURSE.

SELF-GRADING
LESSON EXERCISES

16. The logical method of moving from one state of affairs to another is known as

    a. directing.

    b. planning.

    c. coordinating.

    d. controlling.

17. The principle of putting work into separate tasks and providing for their accomplishment in the club is known as

    a. planning.

    b. coordinating.

    c. directing.

    d. orgainzing.

18. Assigning responsibilities so that someone is responsible for any particular phase of the club operations is a logical step in

    a. directing.

    b. organizing.

    c. planning

    d. controlling.

19. The principle of guiding the club in the execution of its plans is known as

    a. planning.

    b. directing.

    c. coordinating.

    d. organizing.

NOTE: SOME QUESTIONS HAVE BEEN OMITTED DUE TO MILITARY SPECIFIC MATERIAL.

20. The principle of insuring that the functions of the different sections of the club do not conflict or overlap is known as

    a. organizing.

    b. coordinating.

    c. directing.

    d. controlling.

21. When the manager uses sound management principles in establishing objectives for the operation of his club, which of the following best describes his actions?

    a. Charting a particular course of action.

    b. Identifying goals that he wants his club operations to attain.

    c. Insuring that his different courses of actions do not conflict.

    d. Insuring that his operations will be profitable.

22. A manager wants to use positive motivation when dealing with his employees. Which of the following best describes his actions?

    a. Offers employees periodic pay raises.

    b. Reprimands employees in the presence of others.

    c. Assigns additional duties without extra compensation.

    d. Disregards employees' preferences in the assignment of tasks.

23. A manager would best achieve cooperation from employees by using which of the following management practices?

    a. Making decisions without employee consideration.

    b. Getting the job completed regardless of employee feelings.

    c. Emphasizing the "we" approach in operating a club.

    d. Permitting employees to work without explaining the plans.

U.S. ARMY QUARTERMASTER SCHOOL
FORT LEE, VIRGINIA 23801

LESSON 1

SOLUTION SHEET

Check your work against the solutions given below. If you have made a wrong response or omitted a required response, correct your work. Then, go back and restudy the appropriate text portion once more (references follow each solution).

Ex	Sol	Ref
16.	b	para 9a
17.	d	para 9b
18.	b	para 9b(4)
19.	b	para 9c
20.	b	para 9d
21.	b	para 11a
22.	a	para 11b(7)
23.	c	para 11d

All references are to the Lesson Text.

HAVE YOU CHECKED YOUR ANSWERS, MADE CORRECTIONS, AND RESTUDIED THE TEXT, IF NECESSARY? IF YOU HAVE, GO ON TO THE NEXT LESSON OF THIS SUBCOURSE.

38

LESSON 2 Credit Hours: 2

LESSON ASSIGNMENT

SUBJECT . . . . . .Club Equipment and Layout.

STUDY ASSIGNMENT . . . . . Lesson Text.

SCOPE . . . . . Procurement of club equipment to include: funds and supply procedures used and selection and distribution of various types of equipment; layout and design principles for club kitchen and dining areas.

OBJECTIVES

1. Given a situation requiring the procurement of specific items of club supplies and equipment, the student will be able to

   a. Explain the procedure to be followed.

   b. State the supply channels to be followed.

   c. State limitations placed on obtaining the items.

2. Given a club kitchen layout, the student will be able to point out its advantages and disadvantages and justify his judgements by identifying appropriate principles of layout and design.

3. Given the capacity of a club kitchen, the student will be able to compute the space required for designated feeding areas.

4. Given a list of equipment and furniture items that are excess to requirements, the student will explain the procedure for disposing of each item.

22

LESSON TEXT

1. INTRODUCTION. A well-organized and capably operated club is an asset to a post, camp, or station. One of the contributing factors assuring an adequate club facility is the careful selection of suitable equipment and its efficient arrangement and proper maintenance. The club manager is responsible for initiating action to obtain equipment and for its replacement, addition, and alteration. The manager should be familiar with the channels through which equipment may be obtained, the kinds of equipment available, and the purpose and function of each item. Furnishings should be selected for comfort, utility, and beauty. Well-selected furnishings and tastefully decorated rooms are as essential to a successful food operation as the food itself. The enjoyment of any simple meal may be greatly enhanced by a pleasant atmosphere.

2. FUNDS FOR EQUIPMENT AND FURNISHINGS. Nonappropriated and appropriated funds may be used to provide equipment and furnishings for the club, either officers' or enlisted.

a. INITIAL ISSUE. The initial provision of equipment and furnishings needed to support a club facility is usually provided from nonappropriated funds. Nonappropriated funds augment appropriated funds and are used to provide morale-building programs for military and civilian personnel and their dependents. These funds are accumulated from contributions and profits from revenue-producing activities, and are used to supplement programs using these facilities. The three general categories of nonappropriated funds authorized for use of club operations are: revenue-producing funds, derived from post exchanges, theaters, restaurants, book stores, and other operations; welfare funds of various kinds, established and maintained by income derived primarily from dividends of revenue-producing activities and other authorized sources; and sundry or association funds, such as central post and club funds, supplemental field ration dining facility funds, and others. Administrators of such funds may grant money to a club under certain conditions of repayment, or they may make a loan to the club management at a low rate of interest. It is also possible for the club to assess its potential membership for the initial capital to start a club. Primarily, clubs are nonappropriated fund activities and must be self-support.

b. USE OF APPROPRIATED FUNDS. Appropriated funds also may be used to provide an initial provision of equipment and furnishings surplus to the Army and needed to support a club facility. These are funds appropriated by Congress to finance military missions for morale, welfare, and recreational purposes. Such funds are made available on a loan basis only for equipment and furnishings which are excess to post requirements. Expenses involved in moving equipment to the club must be borne by the club. However, the property is maintained from appropriated funds as long as title to it rests with the Government. This does not relieve the club from the responsibility of protecting the property from loss, damage, or destruction. NCO clubs may be furnished initial club equipment through military supply channels, which involves use of appropriated funds. A club can, if it is recognized as an essential dining facility, receive appropriated funds for building requirements, utilities, maintenance, and issue of club and dining equipment for food. However, the equipment must be surplus to the needs of clubs in order to qualify for appropriated funds.

3. PROCUREMENT. There are several ways by which equipment and furnishings for the club are procured.

a. USE OF AVAILABLE EQUIPMENT. Available equipment which is not in use or immediately required for operational needs within the command may be used. Government and non-Government equipment may be loaned by the responsible element on a temporary (return-on-demand) basis to an non-appropriated fund activity, such as the club.

b. DONATIONS OR GIFTS. Unconditional contributions and donations of property, money, or services voluntarily offered by individuals, business firms, civilian organizations, or any association outside the military may be accepted for inclusion under nonappropriated funds when determination is made that acceptance is in the best interest of the military. The following conditions must be met for donations or gifts:

(1) Contributions must not result from solicitation on the part of military or civilian personnel.

(2) No arrangements will be made which entail the granting of special concessions or privileges to any donor or contributor.

(3) No public acknowledgment will be made of the donor or a receipt given to the donor for the donation or contribution.

(4) Property may not be accepted unless the donor relinquishes ownership rights.

(5) Acceptance of such contributions as donations for the nonappropriated fund will be subject to prior approval as follows:

(a) By the installation commander, when the value does not exceed $1,000.

(b) By the major commander, when the value exceeds $1,000, but does not exceed $10,000.

(c) By the Department of the Army, Air Force, or major commanders outside the continental United States when the value is in excess of $10,000.

c. COLLATERAL EQUIPMENT. Collateral equipment is equipment built into the facility and permanently installed. Collateral equipment is generally provided for in the initial planning and construction of the club. When necessary to replace collateral equipment, it can be purchased under contract on the open market using nonappropriated funds or obtained from clubs being closed within the command.

d. EQUIPMENT ON LOAN. Government equipment carried in property books of the installation may be loaned to clubs as long as items are not required for return to the supply system; as long as identical items for which substitution could be made are not being purchased or requisitioned by the installation organization for its programed requirements; and as long as the loan is in the best interests of the Government.

e. EQUIPMENT FROM PROPERTY DISPOSAL. Equipment suitable for use in the club may be obtained from the post property disposal facility, such as tables or miscellaneous utensils.

f. PORTABLE EQUIPMENT. Portable equipment is equipment which is movable or temporarily attached by portable devices, such as cooking utensils, fans, tables, chairs, and so forth. The initial replacement requirements for portable equipment will ordinarily be purchased from the open market, using nonappropriated funds. Other sources may be donations, gifts, loans, or salvage. Portable equipment is preferred to collateral equipment in planning a club, since portable equipment enables the kitchen area to be utilized effectively.

4. CONSTRUCTION AND RENOVATION OF CLUB FACILITIES. Before plans can be made for either new construction or renovation of a club facility, information regarding the nature and location of existing facilities must be acquired and evaluated. The following points should be considered:

a. BUILDING. The type of construction, whether permanent, temporary, single- or multiple-story, should be considered. The shape and area of the building are the major considerations when determining the location of the kitchen and dining room and determining whether more than one dining area can be designed.

b. UTILITIES. Normally, the club is a large consumer of utilities services. The availability of utilities, their type, and limitations current on the post should be coordinated with the post engineer in the initial planning stages, since the availability, type, and limitations of utilities will dictate the type and size of equipment which must be planned to accomplish the program. All equipment to be installed should be analyzed as a total package against the utilities provided. If steam is available, the pounds of pressure should be determined. If gas service is available, the kind should be noted, whether manufactured, natural, or bottled. The adequacy of electrical service should be determined in terms of voltage, phase, and cycle. The type of water should be determined, whether hard or soft, in order to evaluate its effects on equipment and the ability of equipment to maintain required temperatures. The adequacy of sewage facilities and drains and types of traps and other disposal equipment needed should be determined.

c. TYPE OF FACILITY. For planning purposes, the type of facility--whether it is to be an officer's club or club for NCO's--makes little difference. Both types of facilities have almost the same requirements. However, officer's clubs may require additional dining space for formal functions. Where a special situation is planned for a new facility, such as, for instance, a pizza hut, the requirement should be evaluated during the design phase.

d. TYPES OF SERVICE. The types of service, whether table service, cafeteria service, or counter service must be known and evaluated. When table service is planned, additional equipment will be necessary, such as refrigerators, deep fryers, and steam tables. A wide variety of menu for table service makes necessary additional equipment in the kitchen and therefore more space. If cafeteria service is planned, a more limited menu than table service can be offered. Provision should be made for display of more prepared items, such as sandwiches. Also equipment for short orders will be necessary, including a fryer and grill. Counter service is generally limited to short order preparation, with no items on display.

e. MENU. Information is needed on the menu, including types of items to be served, and whether the menu is to be a la carte, table d'hote, or selective (menu for special groups). If many items are included on the menu, more equipment in the kitchen will be necessary. If the menu planned has many meat dishes, more oven and range equipment will be necessary. Table d'hote service may require more storage space for a wide variety of foods, rather than a smaller variety of foods offered by a la carte service. A selective menu may require additional space for preparation and for dining large groups.

f. MEAL LOADS. The maximum single meal loads can be determined from the length of serving periods, seating capacity, and serving capacity.

g. SOURCES OF SUPPLY. Is the club near sources of supply and are frequent deliveries possible? Answers to these questions affect the menu and the types of storage equipment required.

h. NEW METHODS OF FOOD PROCESSING. If food is purchased in a partly prepared state, such as proportioned meats, dehydrated, frozen, or cooked and frozen, certain items of equipment usually required for food preparation are eliminated. Other items of equipment may require modification.

i. PERMANENCE OF CLUB. The permanency of the club determines the type of equipment. This is particularly important in connection with fabricated or temporary equipment, such as sinks, tables, and built-in refrigeration, which are selected for limited use. For a temporary club, fabricated items should be of temporary construction and installation. Standard equipment is planned for use in a permanent installation and should be of durable construction. Fabricated or temporary equipment perform the same function as standard equipment in any type of club.

j. OTHER FACTORS. Other factors to be considered in the planning and layout of a club include local climatic conditions; types of heat, ventilation, and air conditioning; types of entrances and exits; possibility of future expansion; available funds and equipment; and possible use of substitute equipment and expedients.

5. SELECTION OF EQUIPMENT. The size and capacity of each type of equipment should be determined on the basis of the total number of persons to be served and the capacity of the dining room. In cafeteria-type clubs the menu pattern must relate to the dispensing facilties. In other words, the type of food served, whether hot or cold, depends on the equipment available.

6. REFRIGERATORS. Refrigerators of the reach-in and walk-in types are available. For more efficient operation, one large refrigerator should be selected instead of several smaller units. The larger unit requires less maintenance, uses less power, takes less space, and provides more efficient handling of foods. In selecting a refrigerator, the amount of power available for its operation should be weighed against other uses of the power available. Also, the types and varieties of food should be considered, and the frequency of resupply of these foods. Types of refrigeration and aisle requirements are outlined below. Refrigerators may be purchased from the Army supply system, purchased from local sources, or may be issued through Army supply channels.

a. FROZEN FOOD CABINETS. Reach-in frozen food cabinets with 25- or 45-cubic-foot capacity are provided in military supply channels.

b. PREFABRICATED REFRIGERATORS. Various prefabricated walk-in type refrigerators with reefer equipment are provided in military supply channels. These refrigerators are shipped in sections for erection at the site.

c. REACH-IN REFRIGERATORS. A commercial reach-in mechanical refrigerator with storage capacity of 65 cubic feet is available in military supply channels.

d. AISLES. Allowance for an outside aisle for entering the refrigerator must be included. The desirable aisle width for a walk-in refrigerator is from 4 to 6 feet.

7. KITCHEN EQUIPMENT. Sinks and food preparation tables are important items of kitchen equipment.

a. SINKS.

(1) Selection of sinks depends on the volume of dinnerware to be washed, the type of dinnerware to be used, and the layout of the kitchen and its relation to the dining room. Generally, sinks need to be convenient to the dining room area but far enough away or shielded in some way to lessen noise. Selection of sinks also depends on what type of mechanical equipment for washing dishes, if any, is planned. The installation of a preflush machine, glass washer, and dishwasher will eliminate the need for large sinks. Normally, a club has one wash sink and two rinse sinks.

(2) The durability, ease of maintenance, and sanitation of sinks should be considered as well as the cost. One sink may be used for several purposes when space is limited. Sinks for food and vegetable preparation should have two or three compartments and two drainboards. Sinks should be one-piece, welded, and seamless. If sinks are placed along walls they should be hung on wall brackets if the construction of the building permits. Only front legs are then required, and cleaning under the sink is made easier. It is sometimes convenient to place sinks adjoining tables rather than along walls. The pot sink is frequently an eyesore, and because of its unpleasant features, the job of pot washer in an open mess is a difficult one to fill. Much of the unpleasantness of this job can be eliminated by proper construction of the sink. The most desirable sink contains three large compartments, a small scraping compartment, and several drainboards. The first large compartment is for soaking, the second for washing, and the third for rinsing. A cook's sink in the single compartment should be located in the cooking area in front of the range line.

b. TABLES. Food preparation tables obtained through Army supply channels are in two sizes and have steel frames, corrosion-resistant tops, and full-length shelves. Wood top tables are available but are less desirable than the corrosion-resistant tables because of difficulty in keeping the top from becoming damaged with cracks and holes through use and therefore difficult to clean. Many varieties and sizes of food preparation tables are available. The water supply should be in a handy location when locating food preparation tables.

8. LAYOUT PRINCIPLES. Certain fundamental principles are involved in planning the layout of a food service establishment, such as a club, regardless of size or type. These principles are affected by the sizes and types of clubs. Personal preference, experience or background, and availability of funds usually influence the initial size. Deviations will occur with the kind of service, the physical setup, and types of equipment, but not in the overall situation. Expert advice from an architectural engineer or design consultant should always be obtained to insure that layout principles are properly applied. The type of menu will affect the layout. No detail is too small to be given consideration. The swing of a door or the position of a light switch may be very important to an efficient operation. Some of the layout principles follow:

a. CONTINUITY. Kitchen plans should afford continuity in receiving, storage, food preparation, cooking, serving, and dishwashing. Raw materials should always move freely toward preparation areas with a minimum of backtracking.

b. SIZE OF AREAS. Areas for receiving, storage including refrigeration, preparation, cooking, serving, and dishwashing should be of adequate size to take care of the operations in each area effectively.

c. ACCESSIBILITY. All areas of the dining facility should be easily accessible for operations. Wide aisles, doors, and an adequate number of entrances and exits aid in making areas accessible.

d. ORDERLINESS. All areas should be planned for orderly arrangement of equipment, processing of food items, and disposal of items. The necessity for uninterrupted flow of food from storage to dining area should be kept in mind.

e. SANITATION AND SAFETY. Basic principles of sanitation and safety should be followed in designing the kitchen.

f. SEQUENCE OF STATIONS. Serving stations should be arranged to allow ease and efficiency in serving. Cross-traffic or unnecessary detours slow the service of food. Kitchen stations should be arranged for waiter service so that cold foods are obtained first and hot foods last. In this way hot foods do not cool noticeably before the food has reached the table. In cafeteria-style service, consideration should be given to the arrangement of the steam table to insure that all items are displayed in logical order. Location of water, beverage, and disposal stations should be carefully considered. Their location depends on the number of serving lines, and the number of stations required.

g. NOISE REDUCTION. The layout and design of the kitchen will influence the noise reaching the dining area. Noise in the kitchen and dining room increases nervous tension and causes friction, confusion, and misunderstood orders. The place for discarding soiled dishes should be carefully considered so that noise can be held to a minimum. Noise can be reduced by use of special types of wall and ceiling board, partitions to muffle sound, and the use of rubber-tired casters on utility carts.

h. LIGHTING. Adequate lighting must be furnished if foods are to be properly prepared and served and equipment thoroughly cleaned. The use of colored lights should not be considered. Tests conducted on foods indicate that the only light reflecting food in its most appetizing state is the incandescent. Reds create a feeling of high excitement. Green lights tinge food with a most unappetizing hue. Excessively bright lights tend to create tenseness and harsh glare.

i. AISLES. Aisles should be wide enough in the kitchen and dining room to permit workers to pass freely without colliding with each other, the fixtures, or equipment. If service carts are used, space for these items should be allowed.

j. AREA LAYOUT. An example of a layout for a kitchen area is shown in figure 1. However, space allotment for the kitchen must always be worked out as an individual problem subject to compromises.

9. SPACE REQUIREMENTS. Some general rules for determining space required for the kitchen and dining room are given below.

a. KITCHEN. The kitchen space, including preparation and storage space, usually requires about two-fifths of the overall space for kitchen and dining room. The peak meal load (period of maximum number of meals) and other related factors are used to determine space requirements. Square feet requirements are less for times other than peak meal periods. The most adaptable shape of a kitchen for waiter-served meals or cafeteria service is a rectangle.

b. DINING ROOM. The dining room space requires three-fifths of the overall space of the kitchen and dining room. Dining room space is based on the number of square feet per seat, estimated to be 20 square feet per seat. This figure includes the overall space in the dining room, including cloak room, reception areas, aisles, seating, and other areas, not just the area of the table and seats.

c. EXAMPLE. A dining facility for 90 guests with full occupancy has an overall area of 1,800 square feet. If the two-fifths rule described above is used, the kitchen area would be

$$1800 \times \frac{2}{5} = 720 \text{ square feet; for the dining area, it would be}$$

$$1800 \times \frac{3}{5} = 1080 \text{ square feet.}$$

d. NEW CONSTRUCTION. In determining space for new construction, all factors previously mentioned must be given careful consideration.

(1) Suppose a dining facility for 100 guests is planned. If the 20-square foot formula (b above) is used, approximately 2,000 square feet is required for a dining facility. Application of the 3/5 rule (c above) would mean that 1,200 square feet is required for the dining room. If family style service is planned, the number of persons to be fed at one time governs the provision of seats. If cafeteria style service is planned, the traffic flow might be estimated at a rate of five diners per minute and 20 minutes for seat occupancy, probably requiring a minimum of 100 seats. However, more seats should be provided for overflow situations. For the continuous feeding operation of 100 diners, approximately 125 seats could be provided. Tables should be 36 inches square. For public circulation, the aisle width should be 36 inches or more to a 5-foot maximum in large operations. For service use only, 24 inches between chair backs will suffice. The main entrance to the dining room should be from 4 to 7 feet wide.

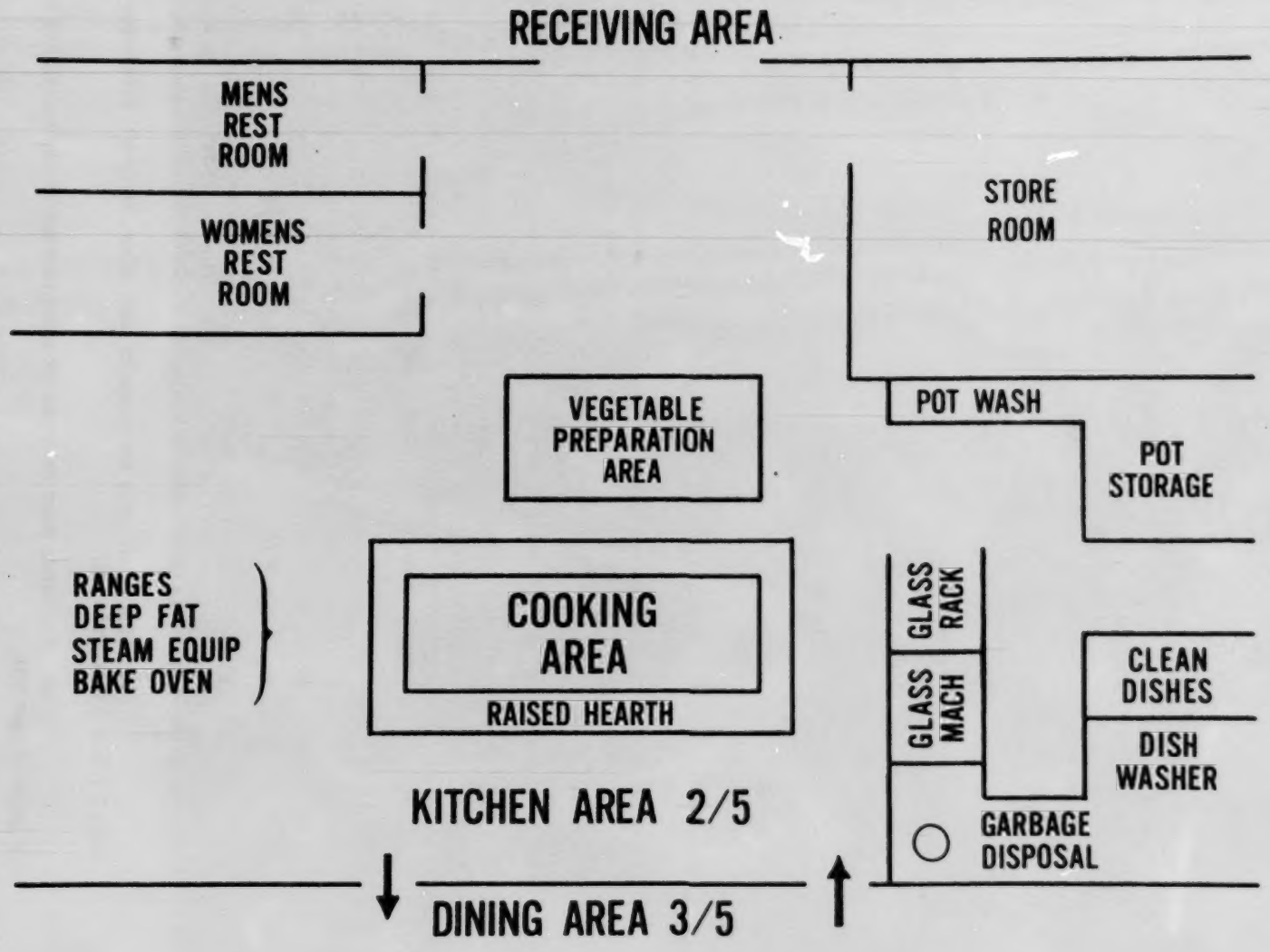

Figure 1. Layout for a kitchen area (suggested).

(2) For the kitchen, a starting point can be made by using the 3/5 rule (c above). Applied to a dining facility of 2,000 square feet, approximately 800 square feet might be allocated to the kitchen. At this point a drawing to scale of the outside walls of the kitchen and dining room should be made and the kitchen divided into major areas (fig. 1). Equipment for 100-diner capacity service should be selected. However, the maximum meal load, plans for expansion, if any, and cost of equipment should be taken into consideration when evaluating equipment. The maximum meal load may require more equipment than originally planned. If expansion is planned, ways to facilitate this expansion should be taken into consideration. Equipment should be no more costly than is required for the operation.

(3) Templates to scale should be cut of the selected equipment and the templates arranged in the major areas of the kitchen on the drawing. After arranging the equipment properly, changes in the plan can be made and a complete plan made by an engineer draftsman.

10. EQUIPMENT ARRANGEMENT. Equipment arrangement should follow good layout principles, and items of equipment should be grouped into logical working units. Supplies and workers should be routed so that they move toward the service area without crossing lines of traffic.

a. RECEIVING AREA. The receiving area is used for counting, checking, weighing, and setting aside food items for storage. The receiving area ranges from a small area combined with the storage area to a receiving platform high enough for easy unloading of trucks. Garbage and trash facilities and equipment for cleaning garbage cans should be located near the receiving area. The receiving area should be easily accessible for loading and unloading trucks. A receiving platform should be about 4 feet high and not less than 10 feet long. A standup desk, scales, and small table are useful fixtures and equipment for the receiving area.

b. STORAGE AREA. Storage space should be located near the receiving area. Storerooms for vegetables and dry storage should adjoin the receiving platform, where possible, to reduce handling of supplies. Space in refrigerators and storerooms should be large enough to permit orderly arrangement of items and prevent overcrowding.

(1) Shelves should be adjustable and wide enough to accommodate cans, bottles, packages, or cases. For canned foods, the clearance or height of each shelf should be 14 to 25 inches to permit the stacking of two No. 10 cans or three No. 2 1/2 cans one on top of the other.

(2) Front to back, the width of the upper shelves should be 18 inches in order to accommodate three double height No. 10 cans or three No. 2 1/2 cans. Shelves may be enlarged to 24 inches at and below counter height, or 30 to 36 inches from the floor.

(3) When shelf units are opposite each other, minimum aisle space is 2 feet, with 2 1/2 to 3 feet preferred.

(4) Allowance must be made for space to accommodate platforms for storage of goods in case lots.

(5) A storeroom space allowance of approximately 0.3 square foot a person served will normally suffice.

c. PREPARATION AREAS. The preparation of vegetables, salads, and meats is the next step in the sequence of handling food.

(1) The vegetable preparation area should be located next to the storage area and should include a double sink with drainboards, food preparation table, and vegetable peeling machine. The floor should be recessed and have a drain.

(2) The salad preparation area is usually separate in large facilities and located next to the storage area. In smaller facilities, the unit may be an integral part of the kitchen or combined with the vegetable preparation area. The minimum equipment for this area should include a food preparation table, a double sink with drainboard, and a vegetable cutting and slicing machine.

(3) The meat preparation area should be located near the cooking area. The minimum equipment should include a food preparation table, meat/fish molding machine, and meat slicing machine. Other items might include a food chopping board and meat, fish, and bone cutter (electric meat saw).

d. COOKING AREA. The cooking area should be located as close as possible to the serving area, figure 2. Equipment should be placed according to use in relation to the other equipment and areas.

(1) The ranges, ovens, and deep fat fryers should be located close to the serving area and mounted on a raised hearth to protect the bottoms of the units from wash water. Adequate space should be provided for food preparation tables and aisles. A suggested allowance of space between tables and equipment is 4 feet 6 inches.

(2) Steam kettles and cookers should be located relatively close to the vegetable preparation area. The floor under the equipment should be recessed and provided with easily accessible drains, and the drains should have sanitary covers.

(3) The food mixing machine should be mounted in an area convenient to bake ovens and steam cookers and kettles. There should be ample working space around the mixing machine for use of attachments and accessories. These may be mounted on a conveniently located board.

(4) Utensil racks should be located close to the pot washing area.

(5) Delivery and storage pastry cabinets are necessary to protect and maintain fresh pastry. Cabinets with enough shelving to meet requirements should be provided for the kitchen. Pastry cabinets come in a variety of sizes. The size is determined by the delivery schedule, variety of pastries, and sales level.

(6) An exhaust hood with removable grease filters should be installed over the ranges, fryers, ovens, steam kettles, steam cookers, and other cooking equipment. The hood minimizes the danger of grease fires, prevents coatings of grease on kitchen walls, and removes smoke and odors.

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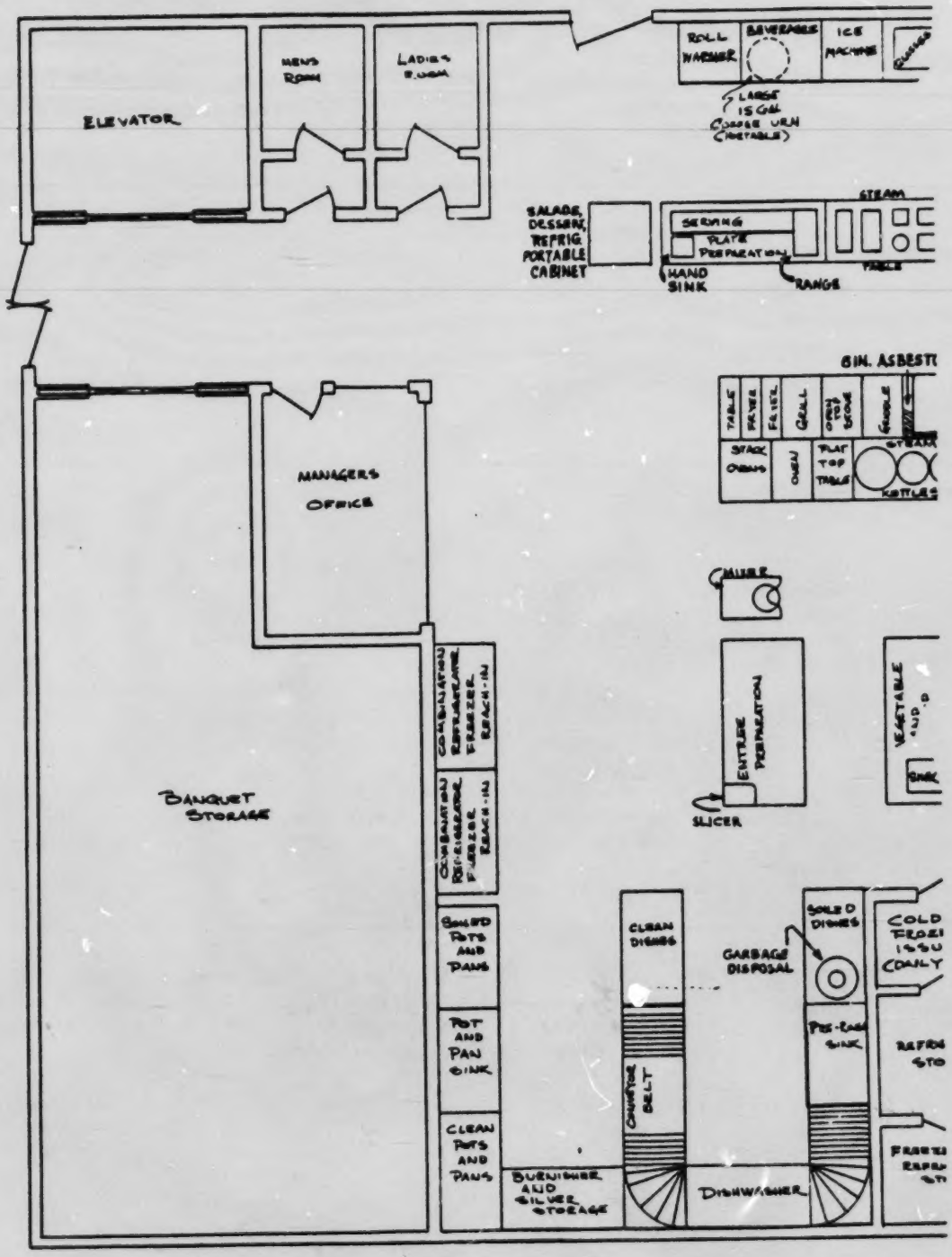
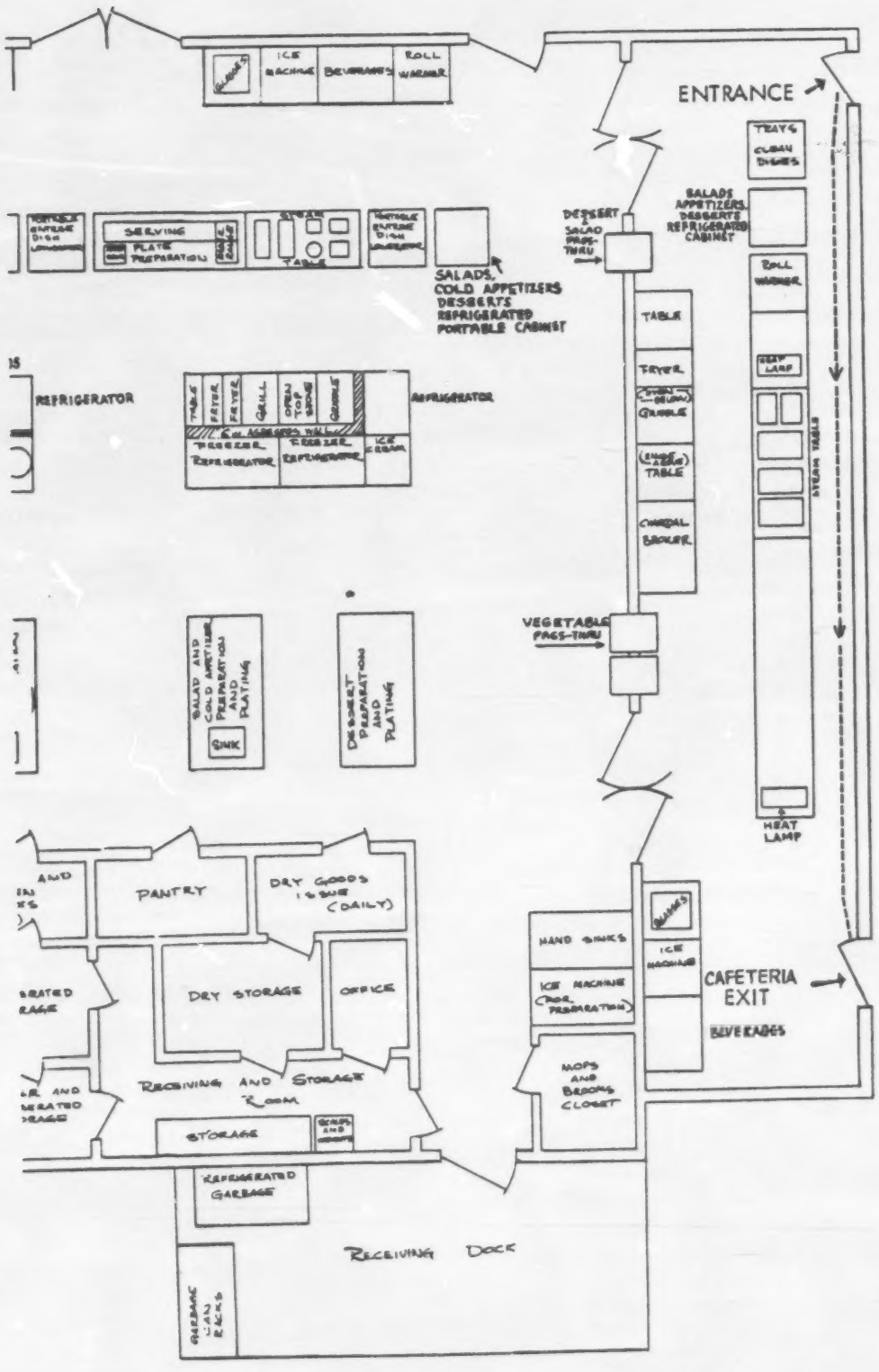


Figure 2. Scale drawing of a kitchen area, including cooking area.

52


ICE MACHINE
BEVERAGES
ROLL WARMER
ENTRANCE
TRAYS
CLEAN DISHES
SERVING
PLATE PREPARATION
TABLE
SALADS, COLD APPETIZERS DESSERTS REFRIGERATED PORTABLE CABINET
DESSERT SALAD PASS-THRU
SALADS APPETIZERS DESSERTS REFRIGERATED CABINET
ROLL WARMER
TABLE
FRYER
GRIDDLE
CHARCOAL BROILER
STEAM TABLE
HEAT LAMP
REFRIGERATOR
REFRIGERATOR
FREEZER REFRIGERATOR
FREEZER REFRIGERATOR
ICE CREAM
VEGETABLE PASS-THRU
SALAD AND COLD APPETIZER PREPARATION AND PLATING
SINK
DESSERT PREPARATION AND PLATING
PANTRY
DRY GOODS ISSUE (DAILY)
DRY STORAGE
OFFICE
RECEIVING AND STORAGE ROOM
STORAGE
REFRIGERATED GARBAGE
RECEIVING DOCK
GARBAGE CAN RACKS
HAND SINKS
ICE MACHINE
ICE MACHINE (FOOD PREPARATION)
MOPS AND BROOMS CLOSET
CAFETERIA EXIT
BEVERAGES

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(8) Because of the necessity of daily cleaning, the kitchen floor should be made of concrete or tile and properly pitched to the floor drains. To help keep the floor dry, drains should be located under and at the front edge of sink drainboards, and at steam equipment, dishwashers, or wherever there is a water drainage problem.

e. SERVING AREA. Part of the kitchen becomes the serving area for table service. The area should be located so as to eliminate cross-traffic of incoming and outgoing waiters. The serving counter of a cafeteria line should be spaced to provide a 3- to 4-foot aisle between the backup equipment (griddles, fryers, hot plates) and the counter. A reach-in type refrigerator and chest for crushed ice should be located with the backup equipment near the cold pans or cold food counter to provide easy replenishment of salads and cold dishes. A steam table should be provided as a part of the serving counter. A steam table has a protective grill to prevent the contamination of food. Several designs for cafeteria service are shown in figure 3. In design A, the two preparation and serving units are at right angles to each other. Both units may serve the same or different menu items. In design B, two arrangements are shown. The one on the left shows one counter with stations in series, each station serving a different menu item. This is a commonly used arrangement. The design on the right shows two adjoining counters in parallel, back-to-back, each serving either the same items or different items, but with only one checkout station. This arrangement offers faster service to patrons than the single counter arrangement. In design C, a flexible arrangement is shown and line congestion is thereby avoided.

f. DINING AREA. The size of the dining area is governed by the number of persons to be seated at one time. The average time for cafeteria-style service is from 12 to 20 minutes a person. Eating time for table service is seldom less than 20 to 30 minutes, but serving time varies.

g. DISHWASHING AREA. The factors governing location of the dishwashing area are size of operation, type of service, personnel available, methods (waiter or cart) used for return of soiled dishes, number of cafeteria lines, ventilation needed, noise created by dishwashing operations, garbage removal requirements, and appearance of the area from the dining room. Continuity of operations must be considered. With mechanical equipment, operations start with the incoming soiled dishes and continue with operations at the dish preflushing machine, glass washer, dishwashing machine, and clean dish counter. From the clean dish counter, dishes or trays are carted back to the clean dish or tray-dispensing point.

h. POT WASHING AREA. A separate pot washing area should be provided. The area, a room if possible, should be conveniently located near the cooking area. Counters should be provided for a cycle operation.

i. GARBAGE AREA. The garbage area, including garbage room and rubbish storage area, should be located at one end of the receiving platform clear of the receiving entrance. Occasionally these facilities can be located in a separate building away from the dining facility. Permanent installations should have a refrigerated garbage room located at one end of the receiving platform with a door opening onto the platform. Where washing of garbage cans is required, a garbage can washing unit should be located at the end of the receiving platform or at some point at the rear of the building. This unit should have hot and cold water and live steam connections to sterilize garbage cans. The garbage area should have good drainage and a sump.

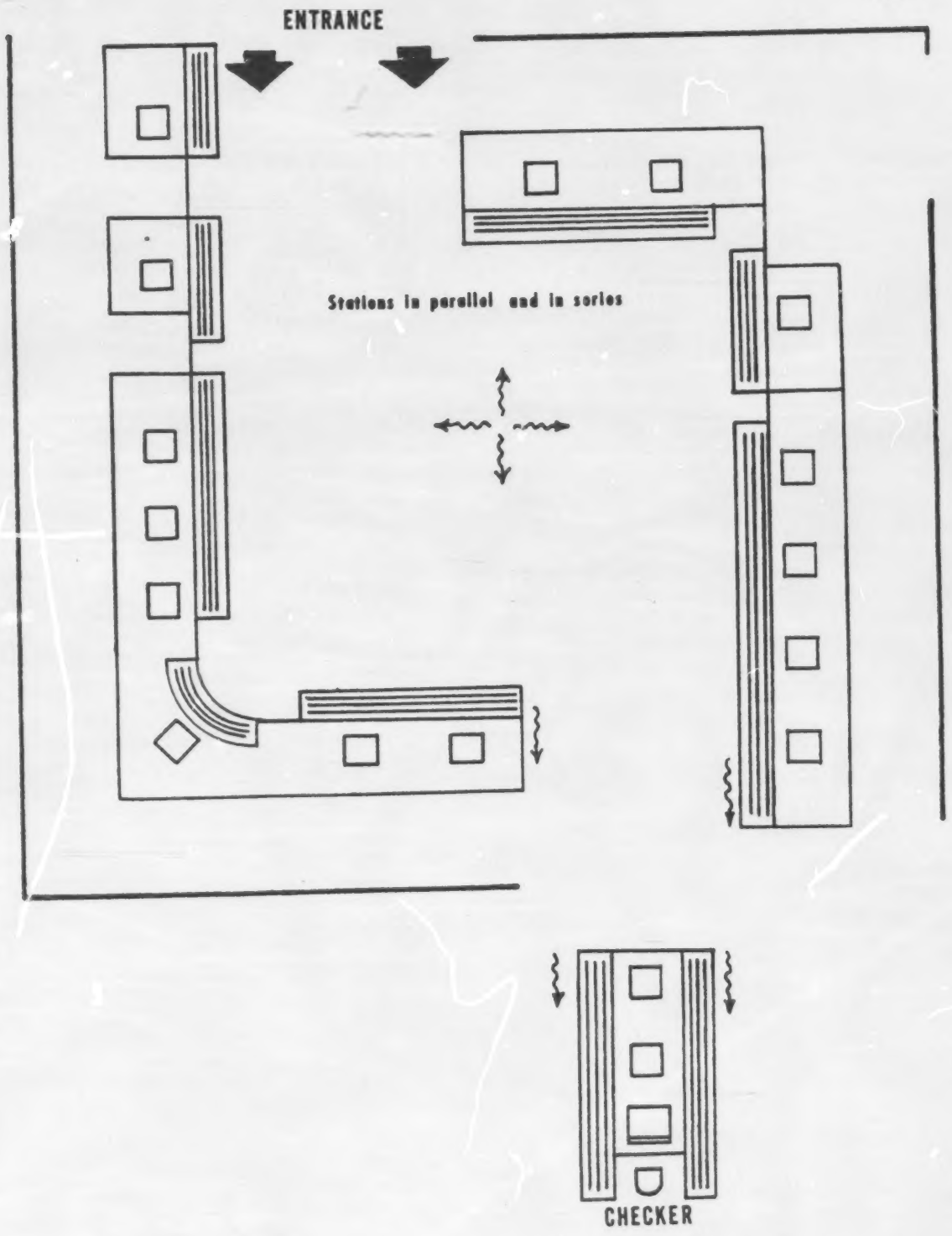

Figure 3. Suggested designs for cafeteria service.

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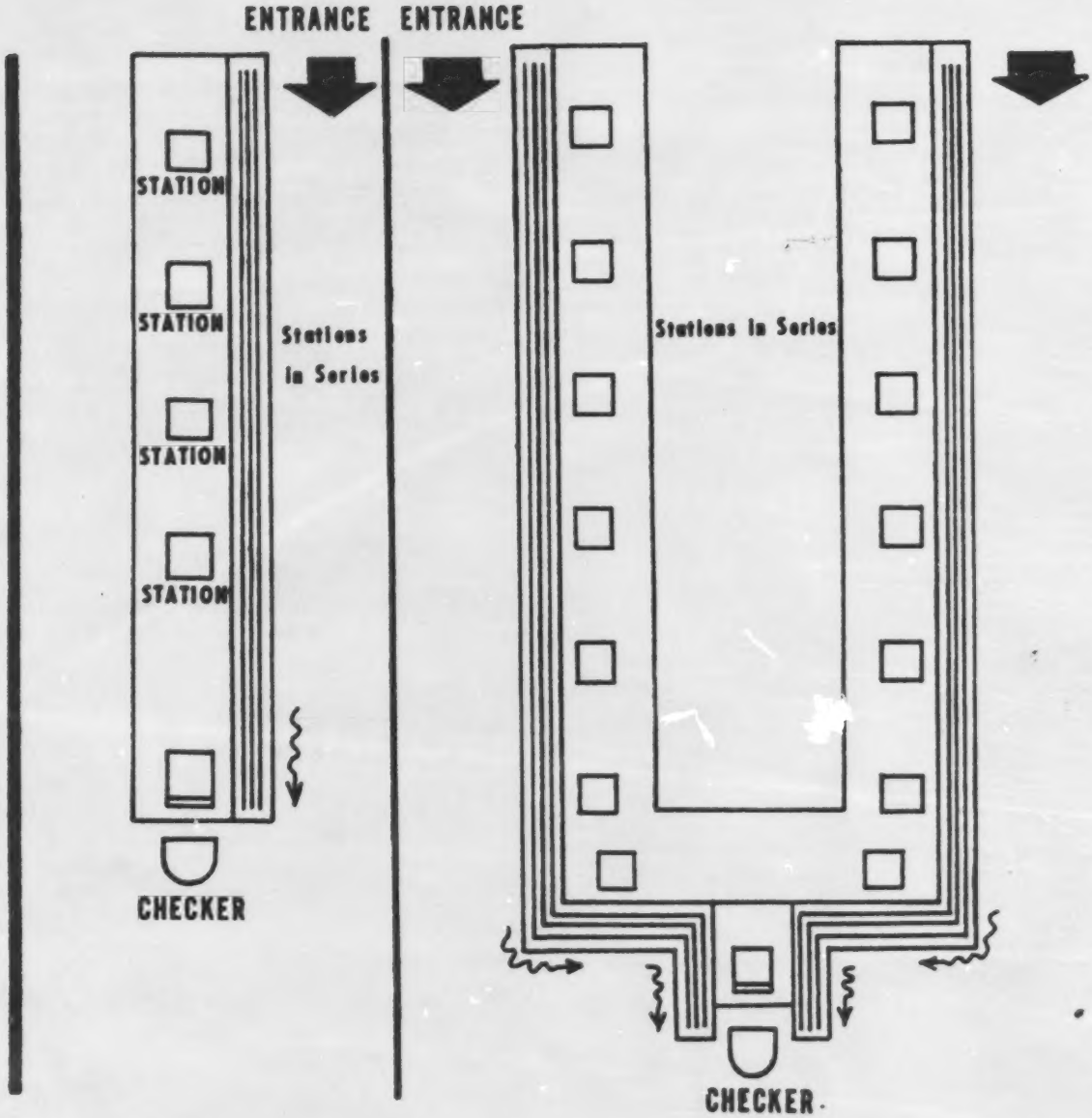
ENTRANCE
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in Series
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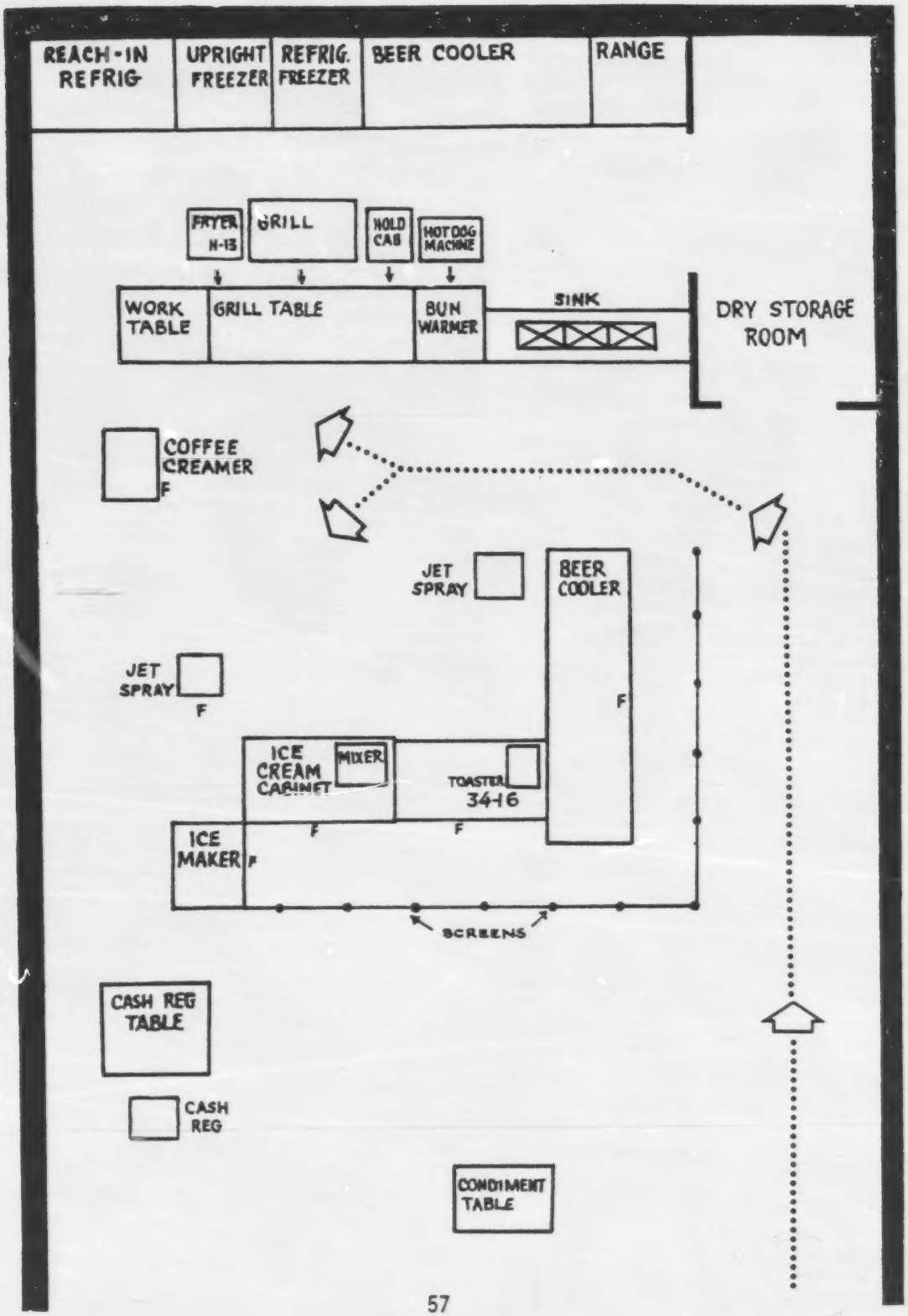
REACH-IN REFRIG
UPRIGHT FREEZER
REFRIG. FREEZER
BEER COOLER
RANGE
FRYER H-13
GRILL
HOLD CAB
HOTDOG MACHINE
WORK TABLE
GRILL TABLE
BUN WARMER
SINK
DRY STORAGE ROOM
COFFEE CREAMER
F
JET SPRAY
BEER COOLER
F
JET SPRAY
F
ICE CREAM CABINET
MIXER
TOASTER 34-16
F
F
ICE MAKER
F
SCREENS
CASH REG TABLE
CASH REG
CONDIMENT TABLE

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11. DRAWING A PLAN. So that the placing of the equipment can be visualized when initially planning a club, the facility and equipment should be drawn on a board to a reduced scale. The most commonly used scale is 1/4 inch = 1 foot.

a. PRELIMINARY PROCEDURES. The procedures for making a drawing are as follows:

(1) Draw the outside walls of the kitchen and dining room.

(2) Tentatively divide the kitchen into major working areas--receiving, storage, food preparation, cooking, serving, washing, and garbage disposal.

(3) Select the kitchen equipment, based on the type of building, available utilities, menu planned, type and length of service required of equipment, maximum meal load, future expansion possibilities, and cost of equipment.

(4) Cut out templates of the equipment selected according to the size of the equipment. Cardboard can be used for templates and identification of the equipment printed on each side of the template.

(5) Arrange templates in assigned areas. The planner can move equipment around until a satisfactory layout has been achieved. It may be necessary to alter plans as a result of using templates.

b. FINAL PROCEDURE. When the planner has the final solution, the plan can be completed by removing the templates and drawing each piece of equipment on the board as the templates are removed, as in figure 2.

12. SANITATION AND SAFETY. Provisions for sanitation and safety must be made in terms of the equipment and its use.

a. Difficult to clean corners and crevices on or adjacent to equipment should be kept to a minimum.

b. Cleaning can be made easier by providing adequate floor drains, enough sanitary covers, and enough racks of proper type and size.

c. Necessary safety guards and duckboards should be provided. Electrical equipment should be adequately insulated.

13. MAINTENANCE OF EQUIPMENT. Correct maintenance and repair are essential to the efficiency and life of kitchen equipment. Manufacturers' maintenance instructions on the proper care of certain cooking utensils are also available. Kitchen personnel should know how to use and clean their equipment. They also should be trained to take care of such simple maintenance as routine lubrication. More complicated maintenance should be turned over to open mess maintenance personnel. Government equipment on loan is maintained by the Engineers. Kitchen personnel should be frequently instructed in the importance of reporting immediately any deviations from normal equipment operation, such as the failure of a refrigerator to maintain a desired temperature. Prompt correction of some minor trouble may prevent serious damage and thus eliminate the need for major repair at a later date.

14. DINING ROOM FURNISHINGS. Dining room furnishings should be attractive and durable.

a. VENETIAN BLINDS. Venetian blinds are recommended over cloth and plastic shades for the club because of their attractiveness and utility. They may be used to control ventilation and light and to offer privacy. Venetian blinds are excellent for carrying out the decorative theme of the club as they are available in a wide range of colors. They may also have contrasting tapes and cords to enhance decorative schemes. Blinds may be constructed of aluminum, steel, and plastic. Spring-tempered aluminum and good steel blinds are flexible, stand heavy abuse, and hold their shape well. Venetian blinds may be obtained in all heights and widths and are therefore easily adapted to any shape window. The original higher cost of venetian blinds is offset by their durability, ease of replacement, and decorative value. Factors which should be considered in purchasing venetian blinds are:

(1) Blinds with baked enamel finishes are the best buy.

(2) Plastic or coated tapes are best because they will withstand rays of the sun without discoloration, are more sanitary and easier to clean, and are generally fire resistant.

(3) Blinds that might be subjected to cooking or chemical fumes or vapors should be guaranteed against discoloration.

b. CURTAINS. The selection of curtains depends on the room layout, the decorative scheme, the patronage, and the money available for purchasing. Curtains are used to soften the lines of a room, to create an intimate atmosphere, to highlight the decorative design, to insure privacy, and to absorb sound. Those that extend to the floor convey a feeling of grace and formality. Short curtains express an air of informality and casualness. Curtain materials are of primary consideration since the regulations require that all curtains purchased for use on Army installations must be fire-resistant. Most synthetic fabrics used in the manufacture of curtains are acceptable. Synthetic materials include nylon, orlon, dacron, rayon, acetate, fiberglas, dynel, and many others. This multiplicity of fabrics permits a wide choice in selection. Dacron has proved to be one of the best of the synthetic fabrics. It is one of the strongest, has a soft fabric, and drapes easily. Dacron is completely resistant to moths and mildew and has an excellent abrasive-resistant quality. It is also washable, holds creases, dries fast, and will not stretch or shrink. In addition to all these features, it will melt before it burns. Rayon, on the other hand, burns relatively fast. Rayon is also moth-resistant and washable but is not mildewproof. This is particularly important in selecting curtains in a locality which has a damp climate. Other fabrics such as acetate and orlon have a poor resistance to fire but may be made fireproof or fire-resistant.

c. DRAPERIES. Draperies are used much the same as curtains. They afford privacy and add dignity and formality. Draperies should fit into the decorative scheme of the room. Usually draperies and curtains are not used together, but venetian blinds are frequently used with draperies. Draperies, like curtains, must be fire-resistant to be used on Army installations. Therefore, synthetic fabrics are generally purchased for use as drapery material. Many new washable materials are on the market for draperies. They should be selected for design and for ease of maintenance. Some of the nylon fabrics require no ironing. Glass-fiber fabrics may be cleaned with a damp cloth, although it is better to have them drycleaned. Regular brushing and dusting will help to prolong the life of the fabrics. Texture should be such that lining is unneccessary.

d. DINING ROOM FURNITURE. Dining room furniture consists principally of tables and chairs for the main dining rooms and stools and counters for other activities, such as snackbars. Furniture should be selected for comfort, durability, and construction. Other features that are also important and should be considered when purchasing furniture are material, quality, design, and finish. Buying solely on price consideration is seldom satisfactory.

(1) MATERIAL. Wood is the primary material used in the manufacture of furniture, although metal is being increasingly used. The best woods are hardwoods, such as walnut, oak, maple, birch, and mahogany. Softwoods, such as gum, are widely used in the present-day furniture industry but are usually finished or veneered to simulate the hardwoods. Aluminum and chromium-plated steel or brass are used mostly in metal furniture manufacture. Wood furniture is usually provided for main dining rooms, while metal furniture is more adaptable to cafeterias and snack bars.

(2) QUALITY. Quality is particularly important in furniture because considerable capital outlay is necessary. The initial cost of quality furniture may seem high, but its long life offsets the higher cost.

(a) WOOD FURNITURE. Some of the features that denote quality in wood furniture are as follows:

1. Sanding should be good, and joints should be tight fitting.

2. Plywood parts should be well fitted and fastened.

3. Straight-grained wood should be used in leg parts.

4. Glue and screws should be used instead of nails.

5. Finish should be resistant to water, fruit juice, alcohol, and scratches.

6. Leather, where used, should be of the highest quality. (Vinyl upholstery fabric is now being widely used to imitate leather for upholstery. Vinyl is a heavy but soft and supple material which has a vinyl coat applied to a knit or woven fabric. It resists runs, and most stains can be washed off.)

7. The finish should be a part of the wood rather than applied to it.

(b) METAL FURNITURE. Features that denote quality in metal furniture include the following:

1. Metal furniture should be free of protruding bolts, rough edges, or welds. If these features are readily apparent, little care was taken in manufacture.

2. Welds should be used only on cross braces.

3. There should be no sharp corners to tear clothing.

4. Upholstery should be stitched tightly around the metal.

5. Chrome should be triple-plated to minimize chipping or peeling.

6. Metal banding used on metal tables to prevent chipping and rough edges should be polished anodized aluminum. Unless banding is anodized, the aluminum will turn black and rub off onto clothing and hands.

(3) DESIGN. Function is basic to design; therefore, the first consideration of furniture design should be the comfort of the user. In club operations, simplicity of style and design is desirable. Stock patterns are the least expensive and most easily replaced. Size is another factor that should influence the purchase of furniture. For a small room, square and oblong tables should be selected. Where space permits, round tables may be used to add variety. Chairs should be sturdy and comfortable. They may be of wood or metal, with solid or upholstered seats, and light enough to be easily lifted. They should be of a modified posture type, with some curve in the back of the chair to make it support the sitter in a comfortable position.

(4) FINISH. Characteristic colors and grains of wood produce a variety of finishes. Tables should be finished so they may be used with or without doilies or linen. Surfaces should be lightly waxed and may be rubbed with linseed oil from time to time to keep the finish at its best. Wood seals with a synthetic resin base also make excellent finishers.

e. DINNERWARE. Factors to be considered in the purchase of dinnerware are types, sizes, and quantities.

(1) TYPE. China for club use should be a vitrified, institution-type ware of medium weight. The choice of rolled-edge or straight-edge dishes is a matter of personal taste. Straight edge generally improves the appearance of the dishes, and breakage is not materially increased by the use of the lighter-looking edge. Ivory or colored bodies are more popular than white because they improve the appearance of the food. Attractive designs are available which fit into the decorative plan of the dining room. The pattern selected should be open stock so that replacement will be easy.

(2) SIZES. The variety and sizes of dishes are determined by the menu and the type of service. Eight-inch plates are suitable for most services, although a 9-inch plate is sometimes used for dinner in main dining rooms. Five and one-half inches is the usual diameter for bread and butter plates and 7 1/4 inches for salad and dessert plates. However, it is less expensive to omit these sizes and purchase a 6 1/2-inch plate for both purposes. A sauce dish to hold 4 ounces is satisfactory for vegetables and may also be used for many types of desserts. Soup bowls may be either 6- or 8-ounce capacity, according to the size of portion desired. This bowl may also be used for cereals and fruits. One size cup may be used for both tea and coffee. A popular size holds 6 ounces. Tumblers may be either pressed or blown. A 10-ounce tumbler may be used for both water and milk; a 12- or 14-ounce tumbler is required for iced beverages; and a 4- to 6-ounce glass is required for fruit and vegetable juices.

(3) QUANTITY. The quantity bought, particularly for a small club, should be enough to serve all patrons at a meal to avoid dishwashing during the meal service. This makes for smoother operation, less breakage, and a better organization of the employees' time. Quantities which allow for minimum breakage and for annual replacements are as follows:

Large plates--2 l/2 to 3 times the number of seats.
Small plates--3 to 4 times the number of seats.
Bowls--2 1/2 to 3 times the number of seats.
Sauce dishes--3 to 4 times the number of seats.
Cups--3 to 4 times the number of seats.
Saucers--2 1/2 to 3 times the number of seats.

f. FLATWARE AND HOLLOWWARE. Factors to be considered in purchasing flatware are type and quantity. Flatware should be of hotel type and weight. Stainless steel ware is preferred to plated ware for club use. Silver-plated hollowware is an attractive alternate to china or glass. It is particularly successful in such items as sugar bowls, large creamers, and salt and pepper shakers. It is essential to control the loss of flatware through careful handling on soiled-dish tables, examination of garbage, and frequent inventories. With these precautions, quantities for purchase are as follows:

Knives--2 to 3 times the number of seats.
Forks--4 times the number of seats.
Soup spoons--1 1/2 to 2 times the number of seats.
Teaspoons--4 times the number of seats.

g. LINEN. Table linen is highly desirable in club food service operation, particularly for the dinner meal. Linenized or cotton damask is the most economical type to purchase. It is lint-free, has the appearance of expensive linen, and does not lose its strength through repeated launderings as does real linen. Real linen is more attractive, but the initial cost is higher than that of linenized fabrics. Linen may be obtained in various colors and in white. White is the most practical as it is universally accepted by patrons. Cloths should hang 7 to 12 inches below the tabletop. They are sold in standard sizes from 54 x 72 to 90 x 109 inches. Cloths should be handled carefully as the initial cost and frequent laundering constitute one of the largest expenses of the dining room. Napkins should be 20 x 22 inches square. The types of service, laundry facilities, number of patrons, and usage determine the amount of linens needed. Four complete sets of linen should be purchased as an initial supply. This will allow for one set on the table, two in supply, and one in laundry.

15. FLOORING AND FLOORS. One of the first essentials for good appearance of floors is immaculate cleanliness. This is particularly important in food service operation. Flooring should be selected that can be easily cleaned and maintained. The floors should be pleasing to look at and so treated that they may be kept clean at low cost. There are many types of flooring. Initial cost, installation, and maintenance vary. Some materials are better suited for dining rooms while others are more adaptable to kitchens.

a. DINING ROOM FLOORS. Floors for dining rooms may be of a variety of materials. The selection is influenced by geographic location and by the decorative treatment of the room. In the Southwest, for example, tile floors are used extensively.

(1) TILE FLOORING. Tile is a piece of fired clay, stone, or concrete. It is attractive and easily cleaned, gives an appearance of coolness, and fits in easily with most decorative schemes. Tile floors are used widely in food service operations.

(2) TERRAZZO FLOORING. Terrazzo is a mixture of marble chips and concrete. When first mixed, it is plastic and adaptable to any shape, size, or contour of surface. It is pleasing in appearance and easily cared for. Terrazzo can be a combination of colors.

(3) RUBBER TILE FLOORING. Rubber tile is a resilient tile of processed materials and other ingredients made by mixing, calendering, vulcanizing, and sanding. It is available in a wide range of sheets, squares, and oblongs. It may also have matching or contrasting feature strips, borders, and stair treads. Rubber tile can be laid over many firm foundations, such as wood, concrete stone, or marble. Rubber tile is easily maintained and cleaned. It should be kept lightly waxed with a water-base wax. Most spills and stains wipe up easily with a damp cloth or mop.

(4) PLASTIC TILE FLOORING. Plastic tile is a resilient vinyl flooring basically compounded from vinyl chloride resins. It comes in several types and a variety of bright colors in solid and marbleized hues. Normal maintenance requires sweeping the floor daily with a soft hair broom. Harsh soaps can be used if necessary as the flooring is alkali-resistant.

(5) LINOLEUM FLOORING. Linoleum is one of the oldest types of resilient floor covering. It is composed basically of oxidized linseed oil, finely ground cork and wood flour, color pigments, mineral fillers, and resinous binders. Linoleum may be obtained in rolls and square tiles. It comes in a wide range of colors, and maintenance is relatively simple.

(6) WOOD FLOORING. Hardwood flooring makes the best floors for the dining room. Wood floors may be used in the dining room with good effect if they are properly treated with a seal and light wax. A varnish treatment is unsatisfactory and results in a shabby appearance in a short time.

(7) CARPET FLOORING. In selecting carpeting for dining rooms or other rooms, it is advisable to contact a sales specialist from one of the leading carpet firms. Factors to be considered in buying carpeting are color, texture, soil resistance, traffic flow, style, and installation in relation to building plans. Prices increase if odd widths, complex patterns requiring many yarn colors, unique textures, or varied pile heights are ordered. Padding should be purchased with the carpet, as it adds to springiness, wear life, and texture. Light colors show soil quickly; multicolors camouflage dirt and cigarette-burn repairs; large patterns shrink a room's size and dominate the decor. On good quality carpeting, the label will show colorfastness, preshrinkage, mothproofing, and content of fiber in face pile and backing.

b. KITCHEN FLOORING. Quarry tile or other fired tile is best for kitchen flooring as it does not absorb grease and moisture. It is sometimes necessary to use cement flooring; if so, a special chemical hardener, preferably with a red coloring added, should be used in working up the top surface. Resilient flooring, such as rubber, asphalt, and cork, is undesirable in kitchens since it deteriorates from exposure to grease and moisture. A wood floor is porous, stains easily, and is difficult to keep clean. It should be used only as a short-time installation and should be of hardwood, preferably maple.

16. VENTILATION AND LIGHTING. Good ventilation and lighting add to the comfort and efficiency of the club facility.

a. VENTILATION. Any room in which food is prepared and served should be well ventilated. First, the odor of the cooking food is not enticing to most patrons. Second, patrons like to be comfortable when eating. Natural ventilation is cheapest, but in most climates natural ventilation is not sufficient.

(1) FANS. Natural ventilation should always be aided in the kitchen by the use of an adequate ventilation system over cooking units. In many kitchens exhaust fans are used to aid ventilation. It is advisable to locate the fan on the roof. If this is not possible, the fan may be located in the side wall nearest the cooking unit. For the most part, air conditioning has replaced the use of fans in dining rooms.

(2) AIR CONDITIONING. Air conditioning is used where comfort demands that the room be cooled in the summer as well as heated in the winter. Air conditioning systems are either the central type or the packaged or unit type. A complete air conditioning system involved simultaneous control of ventilation, temperature, air circulation, humidity, and air cleaning. A central air conditioning system may accomplish all of these features. Some packaged units are capable of performing all of these functions, while others are not. The advice of a heating and ventilating engineer is essential in selecting an air conditioning system for a club.

b. LIGHTING. Good lighting is essential for the comfort of patrons and for efficient performance of duties by employees. Food shows to advantage in a well-lighted room and looks dark and unattractive when the lighting is poor. Dim light increases fatigue and accidents by employees. Cleanliness is possible only when dirt can be clearly seen. Lighting in dining rooms should average 8 to 10 footcandles of candlepower on the table surfaces and 15 to 20 footcandles on cafeteria counters. Recessed lighting makes fixtures unnecessary and gives a pleasing effect.

17. OFFICE. The kitchen office should be located at a place convenient for observing storeroom activities, preparation, and cooking. It should have a raised floor and be provided with observation windows. At least 90 square feet of space should be provided to accommodate a desk, chairs, and files.

18. LOCKER ROOMS AND SANITARY FACILITIES. Employees need locker rooms with showers, toilets, dressing space, and individual lockers. Female employees must have a restroom with one or more cots.

a. SPACE REQUIREMENTS. Since food workers generally change their outer clothing and store uniforms in their lockers, larger lockers and more dressing space are required than in an organization where lockers are required only for coats and hats. Generally, 6 square feet for each worker is enough space in the locker room itself, or about 8 square feet for overall space, including sanitary facilities.

b. SANITARY FACILITIES. Where possible a lavatory should be located outside the locker rooms and within easy view of the office. In this way, supervisors can insure that employees wash their hands before returning to duties in the kitchen. Water closet allotments are based on 1 per 20 persons; urinals, 1 per 40 men; and lavatories, 1 per 10 employees.

19. REQUISITIONING REQUIREMENTS. Much time and effort can be saved by using the correct approach to the requisitioning of kitchen equipment. After the layout has been completed and approved by the club planning board and installation authorities, the planner must follow through on plans to secure the building desired and equipment specified. This requires complete coordination with the food adviser, post supply officer, post engineer, and other staff officers. When a requisition for equipment is forwarded, the layout and any other information or details must be included so that the reviewer at higher headquarters may

clearly understand what is needed and the justification for the need. Before the requisition is forwarded for supply of additional equipment for a club, plans should be completely coordinated with the property officer to ascertain availability and adequacy of facilities and authorization for funds required for installation.

a. ORIGIN. All requisitions originate at the using unit and are processed through the office of the property officer with complete coordination with appropriate staff agencies. Requisitions used to obtain equipment are DA Form 2765 (Request for Issue or Turn-In) and DA Form 2765-1 (Request for Issue or Turn-In).

b. APPLICABLE POINTS. The following points, as applicable, should be covered and accompany the requisition. A clear, complete, and accurate presentation of this information will make further requests for information or justification unnecessary.

(1) PLAN. A copy of the plan should be forwarded through channels.

(2) TYPE OF SERVICE. State whether service is to be table service or cafeteria service and the number of lines for cafeteria service.

(3) TYPE OF PERSONNEL. State whether officers, enlisted men, or others are being served.

(4) LENGTH OF SERVING PERIOD. State how long a period of serving is planned.

(5) CENTRAL FACILITIES. State whether central pastry facility, central meat cutting plant, and/or garrison bread bakery is available.

(6) FINANCIAL SUPPORT. State the type of financial support, whether appropriated or nonappropriated funds, available for the activity planned. The cost of caring for Government-owned portable equipment on loan is borne by the using activity. NCO clubs are furnished with messing equipment, and heat, water, electricity, and other utilities from appropriated funds. The care of non-Government-owned portable equipment is supported by nonappropriated funds.

(7) DISHWASHING MACHINES. The flow of operations, from left to right or right to left, and heating medium intended to be used in heating the wash and rinse water must be noted on requisitions for dishwashing machines.

(8) WATER. State whether an adequate supply of water at a temperature of 180° F. is available for final rinsing of dishes.

(9) DETERGENT. The type detergent used must be designed for the type water available. An incorrect choice will greatly increase warewashing costs. Ecology is also a consideration, because some localities have ordinances which restrict or prohibit use of specific detergents. The use of water softening equipment will also decrease detergent costs and will assist in overcoming ecological problems with detergents.

(10) OPERATIONAL SKETCH. Prepare a sketch showing the cycle of operation and the layout of equipment in the dishwashing room. Also show the flow of traffic from the dining room through the dishwashing room. The sketch is required when making initial requests for dishwashing equipment, when a replacement machine is being requisitioned, or when a new plan for the dishwashing room is contemplated.

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(11) CERTIFICATION. If the item being requisitioned is required as a replacement, a certification is made that the existing piece of equipment is beyond economical repair.

(12) UTILITIES. The available utilities at each building for which equipment is being requisitioned should be noted on each requisition. All requisitions requesting additional electrical equipment should be coordinated with the appropriate agency to determine the adequacy of the electrical circuits in the buildings for which equipment is intended.

20. DISPOSITION OF EQUIPMENT. Equipment use in the club is disposed of in the following manner:

a. APPROPRIATED FUNDS PROPERTY. All property on loan from the Government (purchased with appropriated funds) is returned to the installation supply officer when no longer needed by the club. Such property may consist of furniture, furnishings, and equipment.

b. CLUB PROPERTY. Club property (purchased with nonappropriated funds) may be disposed of in the following manner:

(1) By gift to other Army clubs of the same type. An itemized list of property being disposed of is forwarded to the major command. The major command is also notified of the anticipated date of inspection and disposal of the property. On the designated date, representatives may inspect the property as a group and make on-the-spot selections. Any controversy over disposition of the property is resolved by the commander of the installation disposing of the property.

(2) By gift to an authorized nonappropriated welfare fund activity of the Army.

(3) By transfer to a holding (disposal) activity, accompanied by appropriate documentation. Ninety percent of the proceeds is remitted to the club activity reporting the property for disposition, but property which has been a donation is disposed of without reimbursement to the club.

c. RELEASE TO PROPERTY DISPOSAL. Club property may be disposed of by release to the installation property disposal office. Usually the president of the club advisory council signs the release document. Scrap or salvage property is disposed of without any reimbursement to the nonappropriated fund activity.

LESSON 2

Credit Hours: 2

SELF-GRADING
LESSON EXERCISES

REQUIREMENT: Exercises 1 through 30 are multiple choice. Each exercise has only one correct answer. Indicate your choice by circling its letter.

3. One of the special requirements for cafeterias is space for
   a. additional deep fryers in the kitchen.
   b. additional steam tables at the counter.
   c. table service.
   d. sandwich display.

4. How is the maximum single meal load determined?
   a. By the length of serving periods, seating capacity, and serving capacity.
   b. By the number of meals to be served, seating capacity, and serving capacity.
   c. By the type of service, seating capacity, and serving capacity.
   d. By the type of items to be served, seating capacity, and serving capacity.

5. The size and capacity of each type of equipment should be determined by the
   a. type of service and menu.
   b. dining room seating capacity.
   c. type of service and dining room seating capacity.
   d. total number of persons to be served and capacity of dining room.

6. The minimum aisle width for a walk-in refrigerator is
   a. 4 to 6 feet.
   b. 5 to 7 feet.
   c. 6 to 8 feet.
   d. 7 to 9 feet.

NOTE: SOME QUESTIONS HAVE BEEN OMITTED DUE TO MILITARY SPECIFIC MATERIAL

7. The most desirable type of pot sink has how many large compartments?

   a. One.

   b. Two.

   c. Three.

   d. Four.

8. Which of the following principles would best insure the prompt and efficient service of food in a waiter service-style facility?

   a. Maximum use should be made of cross-traffic waiter patterns between kitchen and dining room.

   b. Kitchen stations should be arranged so that cold foods are obtained first and hot foods last by waiters.

   c. Kitchen stations should be arranged so that hot foods are obtained first and cold foods last by waiters.

   d. Maximum use should be made of narrow aisles to control traffic flow between kitchen and dining room.

9. The location of the beverage station depends on the

   a. location of the kitchen.

   b. number of serving lines.

   c. type of menu.

   d. location of the toasting machine.

10. Of the overall space for kitchen and dining room, the dining room space is normally about

    a. one-fifth.

    b. two-fifths.

    c. three-fifths.

    d. four-fifths.

11. You are planning the kitchen and dining area for 50 guests in an area of 100 feet by 20 feet. The kitchen area would be approximately

    a. 700 square feet.

    b. 800 square feet.

    c. 900 square feet.

    d. 1,000 square feet.

12. You are planning a dining area for a club, and the total area for the kitchen and dining areas is 16,875 square feet. The dining area itself would be approximately

    a. 10,125 square feet.

    b. 6,750 square feet.

    c. 5,625 square feet.

    d. 3,375 square feet.

13. How should items of equipment be grouped?

    a. Into areas according to size.

    b. Into logical working units.

    c. In areas near lines of traffic.

    d. Into working units and storage units.

14. The receiving platform should be about

    a. 4 feet high and 10 feet long.

    b. 5 feet high and 10 feet long.

    c. 4 feet high and 9 feet long.

    d. 5 feet high and 9 feet long.

15. For canned foods, the width of upper shelves in the storage area should be

    a. 15 inches.

    b. 16 inches.

    c. 17 inches.

    d. 18 inches.

16. The vegetable preparation area should be located next to the

    a. kitchen.

    b. storage area.

    c. dining room.

    d. kitchen entrance.

17. The minimum equipment for a meat preparation area is a

    a. food preparation table, meat/fish molding machine, and meat slicing machine.

    b. food preparation table, meat/fish molding machine, and food chopping board.

    c. food chopping board, meat, fish and bone cutter, and meat slicing machine.

    d. meat, fish and bone cutter, meat slicing machine, and meat/fish molding machine.

18. Ranges, ovens, and deep fat fryers should be located close to the

    a. dining room.

    b. storage area.

    c. serving area.

    d. cold storage facilities.

19. The space between the backup equipment and serving counter in a cafeteria should be a

    a. 6- to 7-foot aisle.

    b. 5- to 6-foot aisle.

    c. 4- to 5-foot aisle.

    d. 3- to 4-foot aisle.

20. Eating time for table service is seldom less than

    a. 35 to 45 minutes.

    b. 30 to 40 minutes.

    c. 25 to 35 minutes.

    d. 20 to 30 minutes.

21. In planning for the location of the dishwashing area, one important factor to be considered is the

    a. length of time for food service.

    b. availability of fluorescent lighting.

    c. methods used for the return of soiled dishes.

    d. dining room seating capacity.

22. One of the most important considerations in dishwashing operations is

    a. location of the dining area.

    b. continuity of operations.

    c. ventilation of the kitchen.

    d. location of the serving area.

23. One of the important steps in making a drawing of the kitchen is to divide the kitchen into major working areas, which are

    a. storage, receiving, food preparation, serving, washing, and drying.

    b. receiving, food preparation, cooking, storage, and disposal.

    c. receiving, storage, food preparation, cooking, serving, washing, and garbage disposal.

    d. storage, food preparation, cooking, serving, and washing.

24. Two important factors to consider in the selection of club equipment are

    a. location of kitchen area and location of dining area.

    b. storage space and station sequence.

    c. available utilities and maximum meal load.

    d. size and color of equipment.

25. In planning for sanitation and safety of kitchen equipment, the two most important factors are the

    a. kitchen area and type of service.

    b. number of patrons and type of service.

    c. type of service and equipment.

    d. equipment and its use.

26. The variety and sizes of dishes purchased for the club are determined by the

    a. menu and type of service.

    b. quality of dishes purchased.

    c. total number of persons to be served.

    d. dishwashing facilities available.

27. The amount of linens needed for the dining facility is determined by the

    a. types of service, laundry facilities, number of patrons, and usage.

    b. types of service, laundry facilities, number of patrons, and number of waiters.

    c. number of waiters, size of linens, and laundry facilities.

    d. frequency of laundering, quality of linens, and funds available.

28. Generally, the requirement for space per individual for the locker room is

    a. 6 square feet.

    b. 8 square feet.

    c. 10 square feet.

    d. 12 square feet.

LESSON 2

SOLUTION SHEET

Check your work against the solutions given below. If you have made a wrong response or omitted a required response, correct your work. Then, go back and restudy the appropriate text portion once more (references follow each solution).

Ex	Sol	Ref	Ex	Sol	Ref
3.	d	para 4d	20.	d	para 10f
4.	a	para 4f	21.	c	para 10g
5.	d	para 5	22.	b	para 10g
6.	a	para 6d	23.	c	para 11a(2)
7.	c	para 7a(2)	24.	c	para 11a(3)
8.	b	para 8f	25.	d	para 12
9.	b	para 8f	26.	a	para 14e(2)
10.	c	para 9b	27.	a	para 14g
11.	b	para 9c	28.	a	para 18a
12.	a	para 9c			
13.	b	para 10			
14.	a	para 10a			
15.	d	para 10b(2)			
16.	b	para 10c(1)			
17.	a	para 10c(3)			
18.	c	para 10d			
19.	d	para 10e			

All references are to the Lesson Text.

HAVE YOU CHECKED YOUR ANSWERS, MADE CORRECTIONS, AND RESTUDIED THE TEXT, IF NECESSARY? IF YOU HAVE, GO ON TO THE NEXT LESSON OF THIS SUBCOURSE.

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EXAM 497

Correspondence Subcourse Examination

WAIT

DO NOT GO ON TO THE EXAMINATION EXERCISES UNTIL YOU HAVE STUDIED AND COMPLETED ALL LESSONS IN THIS SUBCOURSE. READ THE SPECIAL INSTRUCTIONS (NEXT PAGE) BEFORE STARTING EXAMINATION.

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SPECIAL INSTRUCTIONS

1. PREPARING FOR EXAMINATION. Before completing this examination, it is suggested that you review each lesson in the subcourse. Check your answers against the solutions given at the back of each lesson. If you have any questions regarding lesson text, lesson exercises, or exercise solutions, use the student inquiry sheet accompanying the lesson.

2. COMPLETING EXAMINATION. Read all directions before completing examination exercises. Check off your answer to each exercise in this examination booklet before indicating your answer on the answer form. Finally, complete the exercises following instructions in NIPUB 203, Correspondence Course Instruction Booklet (sent to you previously). Check your answers before sending in your completed examination answer form. It is suggested that you complete all exercises in this examination. An educated guess is better than an omission.

3. RETURNING ANSWER FORM. When you have completed all examination exercises, return the examination answer form in the addressed envelope provided.

4. EVALUATING SUBCOURSE. You will find a form, student evaluation of subcourse, at the end of the examination exercises. Before filling out this form, read the INSTRUCTIONS at its top. After filling out the form, return it with your examination answer form.

5. USING INQUIRY FORM. A student inquiry sheet is bound in this booklet at the end of the examination. You may use this form for questions regarding administrative matters or legibility of examination materials. The form may also be used for requesting enrollment in an additional correspondence course or in specific subcourses upon completion of current correspondence-course commitments.

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EXAM 497 Credit Hours: 1

EXAMINATION ASSIGNMENT

SUBJECT ..... Club Equipment and Layout.

STUDY ASSIGNMENT ..... Review of all previous assignments.

SCOPE ..... Concept, functions, and principles of club management; relationship of the club to other feeding facilities and activities; functions and proceedings of a club board of governors; procurement of equipment for the club; club layout and design; military and civilian protocol.

OBJECTIVES .....To test attainment of lesson objectives and to emphasize points that have been previously studied.

EXAMINATION EXERCISES

REQUIREMENT. Exercises 1 through 38 are multiple choice. Each exercise has only one single-best answer. Indicate your answer on the answer form.

5. Using sound management principles, a manager is said to be planning when he

   a. evaluates alternate courses of action.

   b. directs a group in work preparation.

   c. develops good working relations within an organization.

   d. maintains harmonious relations among the operating branches.

6. Organizing, one of the five basic principles of management, is performed by the manager when he

   a. supervises the activities of his work force.

   b. establishes goals.

   c. establishes a chain of command.

   d. considers how each operation supports the mission.

7. A good club manager carefully follows the principle of management in conducting the affairs of the club. Which of the activities listed below reflects his use of the principle of directing?

   a. He supervises preparations in support of a plan.

   b. He establishes checks and balances to correct errors.

   c. He determines the objectives of the club.

   d He selects and assigns personnel.

8. A manager is following the management principle of coordination when he

   a. determines how much manpower is needed to achieve the mission.

   b. consults with subordinates to put his plan into effect.

   c. assigns personnel to do certain specific functions.

   d. ties together all functional elements in the mission.

NOTE: SOME QUESTIONS HAVE BEEN OMITTED DUE TO MILITARY SPECIFIC MATERIAL.

9. A club manager follows a sound personnel management technique when he

   a. publicly reprimands an employee for failure to follow instructions.

   b. prepares all financial statements and operating reports himself.

   c. delegates authority for warehousing operations to a competent subordinate.

   d. keeps silent on recently adopted operating procedures to avoid gossip.

15. If you are constructing or renovating a club, what are the major considerations in determining the location of the kitchen and dining room?

   a. Shape and area of the building.

   b. Availability and type of utilities.

   c. Type and class of facility.

   d. Type and permanency of the club.

16. When sinks are selected for dishwashing operations in the kitchen of a club, prime consideration is given to the layout of the kitchen and its relation to the dining room and the

   a. number of personnel assigned to dishwashing operations.

   b. cost of dinnerware to be used.

   c. volume and type of dinnerware to be used.

   d. type of lighting and ventilation available in the kitchen.

17. The three compartments of a pot sink are used for

   a. scraping, washing, and rinsing.

   b. scraping, soaking, and washing.

   c. soaking, washing, and rinsing.

   d. preflushing, washing, and rinsing.

18. Kitchen stations should be arranged so that the waiter obtains

    a. cold foods first and hot foods last.

    b. hot foods first and cold foods last.

    c. cold and hot food together.

    d. cold foods and some hot foods together.

19. You are planning the kitchen and dining area for 45 guests in an area of 60 feet by 15 feet. The kitchen area would be approximately

    a. 2,150 square feet.

    b. 340 square feet.

    c. 360 square feet.

    d. 2,250 square feet.

20. The overall space required for the kitchen and dining room in a club is 1,900 square feet. How much of this space is required for the dining room only?

    a. 1,140 square feet.

    b. 1,100 square feet.

    c. 760 square feet.

    d. 380 square feet.

21. The food mixing machine should be mounted in an area convenient to

    a. the salad preparation area.

    b. the meat preperation area.

    c. ranges and deep fat fryers.

    d. bake ovens and steam cookers.

22. DELETED.

23. The size of the dining area is determined by the

    a. number of patrons to be seated at one time.

    b. style of service to be offered.

    c. number of dining tables available.

    d. number of kitchen and dining room personnel.

24. One of the important factors in selecting the kitchen equipment is to know the

    a. number of kitchen personnel.

    b. maximum meal load.

    c. minimum meal load.

    d. least number of patrons to be served.

25. When furniture is purchased for club operations, the first consideration of furniture design is

    a. proper size.

    b. reasonable cost.

    c. comfort for the user.

    d. appearance.

26. One of the largest expenses of operating the dining room is the

    a. initial cost and laundering of table linen.

    b. initial cost and laundering of napkins.

    c. initial cost and replacement of tableware.

    d. initial cost and replacement of dinnerware.

27. The best flooring material for a club dining room is

    a. terrazzo tile.

    b. fired tile.

    c. plastic tile.

    d. hardwood.

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28. The preferred material for kitchen flooring is

    a. cement.

    b. wood.

    c. linoleum.

    d. tile.

REQUIREMENT. Exercises 39 through 44 are matching exercises. Column I lists statements concerning management functions. Column II lists the management functions. Select the function in column II that matches the statement in column I and indicate the answer on the answer form. The choices in column II can be used once, more than once, or not at all.

COLUMN I	COLUMN II
39. The manager must be able to identify how to support the missions.	a. Cooperating with others.
40. The manager must be able to influence his employees.	b. Communicating with people.
41. The manager must take a sincere interest in subordinates as individuals.	c. Establishing objectives.
42. The manager must anticipate subordinates' reactions to new plans.	d. Motivating employees.
43. The manager must have the support of his employees.	e. Making decisions.
44. The manager must select a course of action relative to policy and major planning.	